```
=> FIL STNGUIDE

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jan  9, 2004 (20040109/UP).

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 07:58:28 ON 14 JAN 2004
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FILE COVERS 1907 - 14 Jan 2004  VOL 140 ISS 3
FILE LAST UPDATED: 13 Jan 2004  (20040113/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.
```

CT: controlled terms
NT: narrower terms
RT: related terms
PFT: preferred, old terms

```
=> d que l35
L1   (      1477) SEA FILE=HCAPLUS ABB=ON  PLU=ON  "SALMONELLA ENTERITIDIS"+PFT,N
                  T/CT
L2   (        64) SEA FILE=HCAPLUS ABB=ON  PLU=ON  "SALMONELLA ENTERICA ENTERITID
                  IS"+PFT,NT/CT
L3   (      9961) SEA FILE=HCAPLUS ABB=ON  PLU=ON  "PIEZOELECTRIC MATERIALS"+PFT,
                  NT/CT
L4   (      1306) SEA FILE=HCAPLUS ABB=ON  PLU=ON  "PIEZOELECTRIC SENSORS"+PFT,NT
                  /CT
L5   (       381) SEA FILE=HCAPLUS ABB=ON  PLU=ON  "SWINE INFERTILITY AND
                  RESPIRATORY SYNDROME VIRUS"+PFT,NT/CT
L6   (        11) SEA FILE=HCAPLUS ABB=ON  PLU=ON  "LELYSTAD VIRUS"+PFT,NT/CT
L7   (     14321) SEA FILE=HCAPLUS ABB=ON  PLU=ON  "TEST KITS"+PFT,NT,RT/CT
L8   (         4) SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2) AND (L3 OR L4)
L9   (         2) SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L3 OR L4) AND (L5 OR L6)
L10  (        14) SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2) AND L7
L11  (         6) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7 AND (L5 OR L6)
L12  (        19) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 OR L11
L13  (      2278) SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?SALMONELL?(7A)(ENTERITIDIS
                  OR ENTERIDITIS)
L14  (       515) SEA FILE=HCAPLUS ABB=ON  PLU=ON  PRRS? OR (LELYSTAD (3A)
                  VIRUS) OR (?SWINE (5A) ?INFERTIL? (5A) ?RESPIR? (5A) VIRUS) OR
                  (?PORCIN? (5A) ?REPRODUC? (5A) ?RESPIR?)
```

within 7 words

controlled text

free text

```
L15 (        24) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 AND ?CRYST?
L16 (         5) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 AND (?PIEZO? OR PZ)
L17 (         3) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L15 AND QUARTZ
L18 (         4) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L15 AND (?SILVER? OR AG OR
                 ?GOLD? OR AU)
L19 (         5) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L17 OR L18
L20 (         5) SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L16 OR L17 OR L18 OR L19)
L21 (         2) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L14 AND (?PIEZO? OR PZ)
L22 (         8) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L14 AND ?CRYST?
L23 (         2) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L22 AND (QUARTZ OR ?SILVER?
                 OR AG OR ?GOLD? OR AU)
L24 (         2) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L21 OR L23
L25 (   3530225) SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?TEST OR TEST? OR ?SCREEN? OR
                 ?ASSAY? OR ?SENSOR? OR ?DETECT?
L26 (    199080) SEA FILE=HCAPLUS ABB=ON  PLU=ON  (?DIAGNOS?)
L27 (     85630) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L25 (L) L26
L28 (        24) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 (L) L27
L29 (        52) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L14 (L) L27
L30 (        75) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L28 OR L29
L31 (         2) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L30 AND (?FREQUENC? OR
                 ?ELECTRIC? OR ?RESONA?)
L32 (       819) SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L13 OR L14) (L) L25
L33 (         8) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L32 AND (?RESONAN?)
L34 (         9) SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 OR L31
L35          31  SEA FILE=HCAPLUS ABB=ON  PLU=ON  L8 OR L9 OR L12 OR L20 OR L24
                 OR L34


=> file medline

FILE 'MEDLINE' ENTERED AT 07:58:45 ON 14 JAN 2004

 FILE LAST UPDATED: 13 JAN 2004 (20040113/UP).  FILE COVERS 1958 TO DATE.

 On December 14, 2003, the 2004 MeSH terms were loaded.  See HELP RLOAD
 for details.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2004 vocabulary.  See http://www.nlm.nih.gov/mesh/ and
 http:\\www.nih.gov/pubs/yechbull/nd03/nd03_mesh.html for a description
 on changes.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d que l39
L36 (   2685883) SEA FILE=MEDLINE ABB=ON  PLU=ON  ?TEST OR TEST? OR ?SCREEN? OR
                 ?ASSAY? OR ?SENSOR? OR ?DETECT?
L37 (      3577) SEA FILE=MEDLINE ABB=ON  PLU=ON  SALMONELLA (5A) ENTERITIDIS
L38 (      1153) SEA FILE=MEDLINE ABB=ON  PLU=ON  L37 AND L36
L39           7  SEA FILE=MEDLINE ABB=ON  PLU=ON  L38 AND (?CRYST? OR ?PIEZ? OR
                 PZ OR ?RESONAN?)


=> d que l50
L40 (       325) SEA FILE=MEDLINE ABB=ON  PLU=ON  "PORCINE REPRODUCTIVE AND
                 RESPIRATORY SYNDROME"/CT
L41 (         0) SEA FILE=MEDLINE ABB=ON  PLU=ON  "PORCINE REPRODUCTIVE AND
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```
                RESPIRATORY SYNDROME VIRUS"/CT
L42 (       325)SEA FILE=MEDLINE ABB=ON  PLU=ON  L40 OR L41
L43 (   2685883)SEA FILE=MEDLINE ABB=ON  PLU=ON  ?TEST OR TEST? OR ?SCREEN? OR
                ?ASSAY? OR ?SENSOR? OR ?DETECT?
L44 (        51)SEA FILE=MEDLINE ABB=ON  PLU=ON  L42 (L) (?DIAGNOS?)
L45 (        45)SEA FILE=MEDLINE ABB=ON  PLU=ON  L44 AND L43
L46 (        28)SEA FILE=MEDLINE ABB=ON  PLU=ON  L45/MAJ
L47 (       687)SEA FILE=MEDLINE ABB=ON  PLU=ON  PRRS? OR (?LELYSTAD?(3A)
                VIRUS) OR (?SWINE (5A) ?INFERTIL? (5A) ?RESPIR? (5A) VIRUS) OR
                (?PORCIN? (5A)?REPRODUC? (5A) ?RESPIR?)
L48 (       383)SEA FILE=MEDLINE ABB=ON  PLU=ON  L47 AND L43
L49 (         2)SEA FILE=MEDLINE ABB=ON  PLU=ON  L48 AND (?CRYST? OR ?PIEZ? OR
                PZ OR ?RESONAN?)
L50          30 SEA FILE=MEDLINE ABB=ON  PLU=ON  L49 OR L46
```

← major concept of paper

* includes other tests for PRRS

```
=> file embase

FILE 'EMBASE' ENTERED AT 07:59:15 ON 14 JAN 2004
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 FILE COVERS 1974 TO 5 Jan 2004 (20040105/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

 This file contains CAS Registry Numbers for easy and accurate
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=> d que l58
L51 (   2685883)SEA FILE=MEDLINE ABB=ON  PLU=ON  ?TEST OR TEST? OR ?SCREEN? OR
                ?ASSAY? OR ?SENSOR? OR ?DETECT?
L52 (       3577)SEA FILE=MEDLINE ABB=ON  PLU=ON  SALMONELLA (5A) ENTERITIDIS
L53 (       1870)SEA FILE=EMBASE ABB=ON  PLU=ON  "SALMONELLA ENTERITIDIS"/CT
L54 (        547)SEA FILE=EMBASE ABB=ON  PLU=ON  L53 AND L51
L55 (         13)SEA FILE=EMBASE ABB=ON  PLU=ON  L54 AND (?CRYST? OR ?PIEZ? OR
                PZ OR ?RESONAN?)
L56 (        728)SEA FILE=EMBASE ABB=ON  PLU=ON  L52 AND L51
L57 (         14)SEA FILE=EMBASE ABB=ON  PLU=ON  L56 AND (?CRYST? OR ?PIEZ? OR
                PZ OR ?RESONAN?)
L58          14 SEA FILE=EMBASE ABB=ON  PLU=ON  L57 OR L55


=> d que l66
L59 (   2685883)SEA FILE=MEDLINE ABB=ON  PLU=ON  ?TEST OR TEST? OR ?SCREEN? OR
                ?ASSAY? OR ?SENSOR? OR ?DETECT?
L60 (       285)SEA FILE=EMBASE ABB=ON  PLU=ON  ARTERIVIRUS/CT
L61 (       139)SEA FILE=EMBASE ABB=ON  PLU=ON  L60 AND L59
L62 (         1)SEA FILE=EMBASE ABB=ON  PLU=ON  L61 AND (?CRYST? OR ?PIEZ? OR
                PZ OR ?RESONAN?)
L63 (       366)SEA FILE=EMBASE ABB=ON  PLU=ON  PRRS? OR (?LELYSTAD?(3A)
                VIRUS) OR (?SWINE (5A) ?INFERTIL? (5A) ?RESPIR? (5A) VIRUS) OR
                (?PORCIN? (5A)?REPRODUC? (5A) ?RESPIR?)
L64 (       191)SEA FILE=EMBASE ABB=ON  PLU=ON  L63 AND L59
L65 (         2)SEA FILE=EMBASE ABB=ON  PLU=ON  L64 AND (?CRYST? OR ?PIEZ? OR
                PZ OR ?RESONAN?)
L66           2 SEA FILE=EMBASE ABB=ON  PLU=ON  L62 OR L65
```

← used for PRRSV

```
=> file biosis

FILE 'BIOSIS' ENTERED AT 07:59:35 ON 14 JAN 2004
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 7 January 2004 (20040107/ED)

FILE RELOADED: 19 October 2003.

=> d que l70
L67 (   2685883) SEA FILE=MEDLINE ABB=ON  PLU=ON  ?TEST OR TEST? OR ?SCREEN? OR
                 ?ASSAY? OR ?SENSOR? OR ?DETECT?
L68 (      4487) SEA FILE=BIOSIS ABB=ON  PLU=ON  SALMONELLA (5A) ENTERITIDIS
L69 (      1269) SEA FILE=BIOSIS ABB=ON  PLU=ON  L68 AND L67
L70           9  SEA FILE=BIOSIS ABB=ON  PLU=ON  L69 AND (?CRYST? OR ?PIEZ? OR
                 PZ OR ?RESONAN?)


=> d que l74
L71 (   2685883) SEA FILE=MEDLINE ABB=ON  PLU=ON  ?TEST OR TEST? OR ?SCREEN? OR
                 ?ASSAY? OR ?SENSOR? OR ?DETECT?
L72 (       693) SEA FILE=BIOSIS ABB=ON  PLU=ON  PRRS? OR (?LELYSTAD?(3A)
                 VIRUS) OR (?SWINE (5A) ?INFERTIL? (5A) ?RESPIR? (5A) VIRUS) OR
                 (?PORCIN? (5A)?REPRODUC? (5A) ?RESPIR?)
L73 (       324) SEA FILE=BIOSIS ABB=ON  PLU=ON  L72 AND L71
L74           2  SEA FILE=BIOSIS ABB=ON  PLU=ON  L73 AND (?CRYST? OR ?PIEZ? OR
                 PZ OR ?RESONAN?)


=> FIL STNGUIDE

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FILE CONTAINS CURRENT INFORMATION.
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=> dup rem l35 l39 l50 l58 l66 l70 l74

FILE 'HCAPLUS' ENTERED AT 08:00:27 ON 14 JAN 2004
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PROCESSING COMPLETED FOR L35
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PROCESSING COMPLETED FOR L39
PROCESSING COMPLETED FOR L50
PROCESSING COMPLETED FOR L58
PROCESSING COMPLETED FOR L66
PROCESSING COMPLETED FOR L70
PROCESSING COMPLETED FOR L74
L75 78 DUP REM L35 L39 L50 L58 L66 L70 L74 (17 DUPLICATES REMOVED)
ANSWERS '1-31' FROM FILE HCAPLUS
ANSWERS '32-66' FROM FILE MEDLINE
ANSWERS '67-75' FROM FILE EMBASE
ANSWERS '76-78' FROM FILE BIOSIS

Duplicate records removed

=> d 175 ibib hitstr abs 1-31

L75 ANSWER 1 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2003:389702 HCAPLUS
TITLE: Immunochemical detection of Salmonella group B, D and E using an optical surface plasmon **resonance** biosensor
AUTHOR(S): Bokken, Gertie C. A. M.; Corbee, Ronald J.; van Knapen, Frans; Bergwerff, Aldert A.
CORPORATE SOURCE: Faculty of Veterinary Medicine, Department of Public Health and Food Safety, Utrecht University, Utrecht, Utrecht, 3508 TD, Neth.
SOURCE: FEMS Microbiology Letters (2003), 222(1), 75-82
CODEN: FMLED7; ISSN: 0378-1097
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A surface plasmon **resonance biosensor** (Biacore) was used to **detect** Salmonella through antibodies reacting with Salmonella group A, B, D and E (Kauffmann-White typing). In the **assay** designed, anti-Salmonella antibodies immobilized to the **biosensor** surface were allowed to bind injected bacteria followed by a pulse with soluble anti-Salmonella Igs to intensify the signal. No significant interference was found for (mixts. of) 30 non-Salmonella serovars at 109 CFU ml-1. A total of 53 Salmonella serovars were successfully **detected** at 1+107 CFU ml-1, except those of groups C, G, L and P, as expected. The cut-off point was determined with an equicellular mixture of **Salmonella enteritidis** and **Salmonella** typhimurium at a final amount of 1.7+103 CFU per **test** portion. Although further work is needed to cover the **detection** of all relevant Salmonella serovars in food-producing animals and food products, this work demonstrates the merits of this alternative **biosensor** approach in terms of automation, sensitivity, specificity, simple handling and limited hands-on time.
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 2 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2002:547756 HCAPLUS
DOCUMENT NUMBER: 137:184016
TITLE: Surface plasmon **resonance** (BIACORE) **detection** of serum antibodies against **Salmonella enteritidis** and **Salmonella** typhimurium
AUTHOR(S): Jongerius-Gortemaker, Betty G. M.; Goverde, Roos L. J.; van Knapen, Frans; Bergwerff, Aldert A.

CORPORATE SOURCE: Faculty of Veterinary Medicine, Department of the Science of Food of Animal Origin, Utrecht University, Utrecht, NL-3508 TD, Neth.
SOURCE: Journal of Immunological Methods (2002), 266(1-2), 33-44
CODEN: JIMMBG; ISSN: 0022-1759
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The authors have used a surface plasmon **resonance biosensor** (BIACORE 3000) to **detect** serum antibodies in chickens having current or recent infections. Three well-defined **Salmonella** flagellar recombinant DNA antigens reflecting **Salmonella enteritidis** (H:g,m flagellin) and **Salmonella** typhimurium (H:i and H:1,2 flagellins) expressed in Escherichia coli were each immobilized in a single flow cell of a **biosensor** chip. Glutathione-S-transferase was immobilized on the surface of another flow cell to monitor non-specific binding. Sera collected from chickens with no history of Salmonella infection, and from chickens infected with Salmonella serotypes infantis, pullorum, gallinarum were used to **test** the performance of the system. The sensitivity exhibited to a range up to 900 arbitrary response units (RU) for the most pos. S. typhimurium serum at a dilution of 1/40. Sera from Salmonella infantis, Salmonella pullorum and Salmonella gallinarum infected birds gave responses less than the cut-off point, which was determined as the averaged response of sera from specific pathogen-free chickens plus three times the standard deviation. A pos. response was obtained when these sera and whole blood were fortified with S. enteritidis and S. typhimurium pos. serum. The sensitivity, specificity, precision and reproducibility obtained suggested that this approach could be used for **detecting** past or present infection with a range of pathogens in animals.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 3 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2001:282319 HCAPLUS
DOCUMENT NUMBER: 134:322928
TITLE: Rapid detection of **Salmonella enteritidis** by **piezoelectric** immunosensor
AUTHOR(S): Si, Shi-Hui; Li, Xun; Fung, Ying-Sheng; Zhu, De-Rong
CORPORATE SOURCE: Department of Chemistry, Central South University of Technology, Changsha, 410083, Peop. Rep. China
SOURCE: Microchemical Journal (2001), 68(1), 21-27
CODEN: MICJAN; ISSN: 0026-265X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Comparative testing of three different coatings for the immobilization of the anti-**Salmonella enteritidis** antibody onto **piezoelec.** (**PZ**) **crystals** with **gold**, **silver** and palladium electrodes was done. In terms of stability, simplicity and magnitude of the frequency change caused by antibody binding to the coating, polyethyleneimine film gave the better results for the immobilization of antibody as compared with the (γ-aminopropyl)trimethoxysilane film or the self-assembled monolayer of 3-mercaptopropionic acid. To reduce the production cost, the small-sized **crystal** with **silver** electrodes was used to fabricate the

disposable antibody-modified **PZ** transducer. The rapid detection of **Salmonella enteritidis** was successfully performed using the antibody-modified **PZ** immunosensor. A detection limit of 1+105 cells/mL and an assay time of 35 min were achieved.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 4 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 2000:209222 HCAPLUS
DOCUMENT NUMBER: 133:70861
TITLE: **Piezoelectric quartz crystal** based screening test for **porcine reproductive** and **respiratory** syndrome virus infection in pigs
AUTHOR(S): Su, Xiaodi; Li, Sam F. Y.; Liu, Wei; Kwang, Jimmy
CORPORATE SOURCE: Inst. Mater. Res. Eng., National University of Singapore, Singapore, 117602, Singapore
SOURCE: Analyst (Cambridge, United Kingdom) (2000), 125(4), 725-730
CODEN: ANALAO; ISSN: 0003-2654
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A **piezoelec. quartz crystal** (PQC) based screening test for **porcine reproductive** and **respiratory** syndrome virus (**PRRSV**) infection in pigs is described. **Gold**-coated **quartz crystals** (10 MHz) were pre-modified by recombinant **PRRSV** protein. A direct assay format was employed to detect the presence of anti-**PRRSV** antibody in pig serum. Both dip and dry detection methods and static liquid-phase measurement approaches were adopted to perform the screening test and real time monitoring of mol. binding. Once the surface had been modified with antigen protein, only one sample incubation step of 5 min duration was required to provide frequency changes corresponding to the binding of the target antibodies. Serum samples from **PRRSV** infected pigs produced significant binding with the signal ranging from 100 to 400 Hz depending on the different titer, whereas samples from uninfected pigs produced no or minimal frequency changes of 0-60 Hz. The proposed PQC sensor can be used to screen pigs suspected to have been infected with **PRRSV** and to provide 'yes' or 'no' results. A total of 41 sera were detected. The results agreed well with those from licensed immunoassay.
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 5 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 8
ACCESSION NUMBER: 1999:792791 HCAPLUS
DOCUMENT NUMBER: 132:248084
TITLE: **Piezoelectric crystal** for sensing bacteria by immobilizing antibodies on divinylsulfone activated poly-m-aminophenol film
AUTHOR(S): Ying-Sing, F.; Shi-Hui, S.; De-Rong, Z.
CORPORATE SOURCE: Department of Chemistry, University of Hong Kong, Hong Kong, Peop. Rep. China
SOURCE: Talanta (2000), 51(1), 151-158
CODEN: TLNTA2; ISSN: 0039-9140
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal

LANGUAGE: English
AB A polymer sorbent formed at the surface of **gold**-plated **piezoelec. crystal** by anodic oxidation of m-aminophenol was investigated by voltammetric, FTIR techniques for antibody coupling after activation by divinylsulfone. A novel film with increased capacity for immobilizing antibodies was obtained using phloroglucinol to modify poly-m-aminophenol via divinylsulfone. Compared with the dip-coating methods using polyethylenimine and (γ-aminopropyl)trimethoxysilane, this new technique gave more reproducible results for the immobilization of antibody from sample to sample due to the improved homogeneity and reproducibility of the coating. With present modification method, a **piezoelec.** immunosensor was developed for the detection of **Salmonella enteritidis.** A detection limit of 1+105 cells ml-1 and an assay time of 25 min were achieved.
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 6 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 9
ACCESSION NUMBER: 2000:95018 HCAPLUS
DOCUMENT NUMBER: 132:343864
TITLE: Application of chimeric RNA-DNA oligonucleotides to the detection of pathogenic microorganisms using surface plasmon **resonance**
AUTHOR(S): Miyachi, H.; Yano, K.; Ikebukuro, K.; Kono, M.; Hoshina, S.; Karube, I.
CORPORATE SOURCE: Meguro-ku, 4-6-1 Komaba, Research Center for Advanced Science and Technology, University of Tokyo, Tokyo, Japan
SOURCE: Analytica Chimica Acta (2000), 407(1-2), 1-10
CODEN: ACACAM; ISSN: 0003-2670
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Chimeric oligonucleotides consisting of 21 bases of RNA with six bases of DNA at the 3'-hydroxyl terminus (chimeric RNA-DNA primer) and the recombinant thermostable DNA polymerase derived from Thermus thermophilus (rTth DNA polymerase) were utilized to efficiently amplify DNA fragments using the conventional polymerase chain reaction (PCR). The reaction required the use of both DNA polymerase and reverse transcriptase during each thermal cycle to form a double-stranded DNA in which one terminus was an RNA:DNA hybrid. Due to the ability of rTth DNA polymerase to function as both the DNA polymerase and reverse transcriptase, a chimeric RNA-DNA primer was shown to serve as a primer in the conventional PCR procedure. We further demonstrate the advantages of using these PCR products to identify microorganisms using surface plasmon **resonance** (SPR) technol. This **detection** system was able to distinguish Shiga toxin-producing Escherichia coli O157:H7 strains from other bacteria such as **Salmonella** typhimurium and S. **enteritidis.**
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 7 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:913331 HCAPLUS
DOCUMENT NUMBER: 139:392125
TITLE: Nucleic acid probes for detection of non-viral organisms and their use for diagnosis of infectious diseases
INVENTOR(S): Lee, Sang-Yup; Chang, Kyung-Hee; Yoo, So-Young; Yoo,

Seung-Min; Keum, Ki-Chang; Yoo, Nae-Choon; Yoo, Won-min; Lee, Gene; Kim, June-Myung
PATENT ASSIGNEE(S): Medigenes, S. Korea
SOURCE: PCT Int. Appl., 396 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003095677	A1	20031120	WO 2003-KR923	20030509

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

KR 2002-25561	A	20020509
KR 2002-25562	A	20020509
KR 2002-25566	A	20020509
KR 2002-25567	A	20020509
KR 2002-25569	A	20020509
KR 2002-25579	A	20020509
KR 2002-25580	A	20020509
KR 2002-25582	A	20020509
KR 2002-25583	A	20020509
KR 2002-25634	A	20020509
KR 2002-25687	A	20020509
KR 2002-51054	A	20020828
KR 2003-5082	A	20030125
KR 2003-5341	A	20030127
KR 2003-5342	A	20030127
KR 2003-5344	A	20030127

AB The present invention relates to nucleic acid probes which are derived from rRNA genes of 46 microbial species and do ot cross-react with nucleic acids originating from those other than the 46 microbial species in a biol. sample. DNA chips are constructed in which said probes are spotted on a solid support and the specificity and sensitivity of each probe confirmed through clin. trials using the DNA chips. In addition, the present invention relates to compns. and chips useful for the diagnosis of one or more types of infectious diseases comprising said nucleic acid probes. Full sequences of 23S rRNA genes and internal transcribed spacer regions are also provided for 28 of the microbial species.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 8 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:221911 HCAPLUS
DOCUMENT NUMBER: 138:251130
TITLE: Method and system for classifying a scenario
INVENTOR(S): Chaplen, Frank W. R.; Gerwick, William H.; Jovanovic,

Goran; Kolodziej, Wojtek J.; Liburdy, Jim; McFadden, Phil; Paul, Brian K.; Plant, Thomas K.; Trempy, Janine E.; Willard, Corwin; Pacut, Andrzej; Upson, Rosalyn H.; Roussel, Nicolas

PATENT ASSIGNEE(S): Oregon State University, USA
SOURCE: PCT Int. Appl., 193 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003023366	A2	20030320	WO 2002-US29085	20020912
WO 2003023366	A3	20031127		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-322004P P 20010912

AB Living cells can be used to identify or quantify bioactive conditions, including without limitation, chems., biol. pathogens, and environmental conditions, such as pH, in samples based on changes in, for example, cell color, morphol. and/or physiol. Such changes can be directly detected or detected with the aid of instrumentation. One embodiment of the method comprises exposing a system to a bioactive condition, such as a chemical agent, a biol. pathogen, an environmental condition, such as pH, etc., and combinations of such conditions. The system then exhibits a response to the bioactive condition. The response of the system, or a portion thereof, to the bioactive condition is then represented, such as by digital images. The method then involves attempting to classify a scenario by database comparison. Classification can be in terms of numeric or non-numerical classifiers. Typically, the system comprises living cells. Living cells useful for practicing the method experience a detectable change in response to an interaction with a bioactive condition. A likely living cell for use with the method and apparatus of the present invention is a chromatophore. The present method has a number of uses, including classifying unknown drug candidates, classifying unknown toxins, classifying chemical warfare agents, etc. The method a can be implemented using a computer program encoding the method. Moreover, a computer-readable medium is described on which is stored a computer program having instructions for executing the method. A cytosensor apparatus also is described. Betta chromatophores were isolated and used in cytosensors to detect biol. toxins in food and water, a calcium ion channel in erythrophores, and other agents. A two-cell cytosensor containing chromatophores and a small inoculum of a selected microbial cell was used to test potential antibiotics.

L75 ANSWER 9 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:840802 HCAPLUS

DOCUMENT NUMBER: 139:318403
TITLE: Detecting target nucleic acid using labeled detection probes and immobilized capture probes: Salmonella 23S rRNA detection
INVENTOR(S): Tanaka, Yasuyuki; Okada, Keisaku; Asai, Kazuko
PATENT ASSIGNEE(S): Nitto Denko Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003304880	A2	20031028	JP 2002-115307	20020417

PRIORITY APPLN. INFO.: JP 2002-115307 20020417
AB A method and kit are provided for rapidly and conveniently detecting target nucleic acid. For this method detection probes and capture probes hybridizable with the target nucleic acid, but not with each other are used. The method comprises: (a) mixing the detection probes labeled with a signal reporter with the test sample; (b) adding the mixture obtained in (a) to the support comprising the capture probes immobilized on a water-absorptive support via a ligand-ligand-binding substance interaction; (c) developing the mixture under stringent condition; (d) detecting the signal from the signal reporter on the immobilization support. A biotin-streptavidin or biotin-avidin combination is used to immobilize the capture probes. The detection probes are labeled with a dye particles, enzyme, fluorescent dye, or radioisotope. The method allows identification of pathogenic organisms by targeting single stranded nucleic acid, specifically rRNA from listeria or Salmonella, for example. Salmonella 23S rRNA was successfully detected by this method using capture probes immobilized on a nitrocellulose membrane via biotin-streptavidin interaction and 3'-digoxigenin (DIG) labeled detection probes.

L75 ANSWER 10 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:585208 HCAPLUS
DOCUMENT NUMBER: 139:132459
TITLE: Production and purification of antibodies from egg yolk for food, cosmetic, medical and pharmaceutical and research uses
INVENTOR(S): Inoue, Tomoko; Jito, Aya; Hatta, Hajime
PATENT ASSIGNEE(S): Pharmafoods Research Institute, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003212898	A2	20030730	JP 2002-13461	20020122

PRIORITY APPLN. INFO.: JP 2002-13461 20020122
AB Provided are methods for production of anti-virus, microorganism, or antigen antibodies in egg and purification of chicken IgG from egg yolk. The production
method comprises immunizing egg-laying hens with antigen and harvesting

antibodies from egg yolk. The purification method comprises removing lipid fraction from egg yolk with organic solvent, extracting antibodies from delipidated egg yolk with salt solution, subjecting the extract to cationic exchange chromatog. column to remove non-absorbed proteins, and eluting the antibody fraction with salt solution

L75 ANSWER 11 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:429102 HCAPLUS
DOCUMENT NUMBER: 137:17445
TITLE: Solutions comprising sodium metasilicate and a substituted ether for nucleic acid extraction
INVENTOR(S): Lai, Lucy Tung-Yi; Ho, Michael Shiu-Yan
PATENT ASSIGNEE(S): PE Corporation (NY), USA
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002044400	A2	20020606	WO 2001-US46165	20011115
WO 2002044400	A3	20030220		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 6503716	B1	20030107	US 2000-724766	20001128
AU 2002020175	A5	20020611	AU 2002-20175	20011115
EP 1346037	A2	20030924	EP 2001-998649	20011115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-724766 A 20001128
WO 2001-US46165 W 20011115

AB The present invention provides aqueous compns. comprising sodium metasilicate and an ether and methods of using the compns. to extract a nucleic acid from a cell, virus or other source. The extracted nucleic acids can be used for a variety of purposes, including as a source of template DNA for a polymerase chain reaction. According to the method, a biol. sample is contacted with a nucleic acid extraction reagent for a period of time and at a temperature sufficient to lyse cells in the biol. sample. Following lysis, the nucleic acids are recovered from the cell debris, typically by centrifuging the sample to pellet the cell debris and recovering the supernatant, which comprises the nucleic acids. Nucleic acid extraction reagents useful in the method of the invention are solns. comprising sodium metasilicate and a substituted ether. The reagents are typically neutral to basic, with a pH in the range of about pH 7 to about pH 10, and generally comprise from about 0.1 % to about 18 % (w/v) sodium metasilicate and about 0.05 % to about 80 % (volume/volume) substituted ether. The identity of the substituted ether is not critical for success. Typical substituted ethers that can be used include, by way of example and not limitation, alkoxyalkyl alcs., aryloxyalkyl alcs. and alkyloxyaryl alcs.

comprising a total of from 2 to 12-carbon atoms; more preferably from three or four to eight carbon atoms.

L75 ANSWER 12 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:31684 HCAPLUS
DOCUMENT NUMBER: 136:107111
TITLE: PCR primers for monitoring microorganisms levels in water using reference panels of microorganisms
INVENTOR(S): Renaud, Patricia; Guillot, Emmanuelle; Mabilat, Claude; Vachon, Carole; Lacroix, Bruno; Vernet, Guy; Armand, Marie-Astrid; Laffaire, Philippe
PATENT ASSIGNEE(S): Bio Merieux, Fr.
SOURCE: PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002002811	A2	20020110	WO 2001-FR2191	20010706
WO 2002002811	A3	20030320		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001072629	A5	20020114	AU 2001-72629	20010706
EP 1317565	A2	20030611	EP 2001-951777	20010706
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: FR 2000-8839 A 20000706
WO 2001-FR2191 W 20010706

AB The invention concerns a method for controlling the microbiol. quality of an environmental aqueous medium, suspected of containing various micro-organisms, comprising the following steps: selecting a reference set, consisting of at least three micro-organisms, representing jointly or sep., a microbiol. quality level; providing a microbiol. detection kit, consisting of at least three probes specifically and resp. identifying said three micro-organisms; after treating the medium to be analyzed, contacting said micro-organisms, or any fraction thereof derived from the medium to be analyzed therefrom, with said detection kit, whereby a multiple determination of said micro-organisms is carried out, said determination representing the microbiol. quality level of the medium. The invention also concerns an appropriate microbiol. detection kit for implementing said method. Optimization expeiments using RT-PCR to detect low levels of bacteria in samples of water are reported. The ability to simultaneously detect several microorganisms in a sample is demonstrated.

L75 ANSWER 13 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:538414 HCAPLUS

DOCUMENT NUMBER: 137:106060
TITLE: Immunoassay and test kit for simultaneous detection of multiple analytes in clinical or in sewage and water samples
INVENTOR(S): Kitaura, Chieko; Maruyama, Koji; Saiga, Takeshi
PATENT ASSIGNEE(S): Nitto Denko Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002202309	A2	20020719	JP 2000-401662	20001228

PRIORITY APPLN. INFO.: JP 2000-401662 20001228

AB The disclosed immunochromatog. test element and kit comprises multiple water absorbent-immobilized antibodies specific for multiple antigenic analytes and colored water-dispersible polymeric particle-immobilized antibody against the anti-analyte antibodies. The immunochromatog. test element and kit are useful for simultaneous determination of disease markers in clin. samples or analytes such as bisphenol A, dioxine, DDT and environmental hormones in sewage or rainy water samples. In example, carboxylated polystyrene latex-immobilized goat anti-mouse IgG polyclonal antibody, and absorbent support containing rabbit-derived anti-Salmonella enteritidis and goat-derived anti-Escherichia coli O157 polyclonal antibodies were prepared and used for simultaneously detecting Salmonella enteritidis and E. coli O157.

L75 ANSWER 14 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:364191 HCAPLUS
DOCUMENT NUMBER: 136:368439
TITLE: An immunoassay apparatus containing specific antibody immobilized on fiber filter to detect antigen
INVENTOR(S): Kariyama, Hidesato
PATENT ASSIGNEE(S): Uma K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002139497	A2	20020517	JP 2000-369228	20001030

PRIORITY APPLN. INFO.: JP 2000-369228 20001030

AB An apparatus is provided to detect specific substances such as antigen. The apparatus is a small reaction container (13.5 x 16 x 11.5 mm3) in which multi-layers of fiber filters immobilized with or without antigen specific antibody (first antibody) are filled on the top of the absorption layer. The sample antigen followed by specific antibody (second antibody) are loaded resp. to the apparatus and are absorbed to the fiber filter; the concentration of antigen can be measured by colonizing the antigen-antibody complex on the fiber filter with loading gold or fluorescein labeled antibody against the second antibody.

L75 ANSWER 15 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:354203 HCAPLUS
DOCUMENT NUMBER: 136:320296
TITLE: Primers for the amplification of the 16S ribosomal RNA or DNA for detection of Eubacteriales in diagnosis of infection
INVENTOR(S): Mabilat, Claude; Jay, Corinne; Christen, Richard
PATENT ASSIGNEE(S): Bio Merieux S.A., Fr.
SOURCE: Fr. Demande, 45 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2811321	A1	20020111	FR 2000-8714	20000704
PRIORITY APPLN. INFO.:			FR 2000-8714	20000704

AB Primers for the detection of bacterial 16S rRNA or the corresponding DNA are described for use in the rapid diagnosis of bacterial infection, especially septicemia. The primers are derived from the region corresponding to bases 340-800 of the Escherichia coli 16S rRNA. Sixteen primers (eight forward, eight reverse) that can be used in different combinations to give genus- or species-specific amplification products are described. The primers may be used in any suitable amplification procedure.

L75 ANSWER 16 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:418315 HCAPLUS
DOCUMENT NUMBER: 137:200489
TITLE: Immunosensor for the differentiation and detection of Salmonella species based on a **quartz crystal** microbalance
AUTHOR(S): Wong, Y. Y.; Ng, S. P.; Ng, M. H.; Si, S. H.; Yao, S. Z.; Fung, Y. S.
CORPORATE SOURCE: Department of Chemistry, The University of Hong Kong, Hong Kong, Peop. Rep. China
SOURCE: Biosensors & Bioelectronics (2002), 17(8), 676-684
CODEN: BBIOE4; ISSN: 0956-5663
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Immunosensors based on the microgravimetric **quartz crystal** microbalance (QCM) technique have been developed for the detection of Salmonella species from serogroups A, B and D. Salmonella serogroup-specific murine monoclonal antibodies, resp., raised against these serogroups were immobilized onto the **silver** electrodes of **piezoelec.** (**PZ**) **crystals** by cross-linkage via glutaraldehyde (GA) to the electrode surfaces pre-coated with thin polyethyleneimine (PEI) layer. The specific immunosensors developed gave responses in linear ranges from 105 to 5+108 cells per mL with no significant interference from other strains of Salmonella and Escherichia coli up to 108 cells per mL. They showed good repeatability and excellent linear range, achieving detection limits down to 104 cells per mL with ability to distinguish different strains of Salmonella. These biosensors exhibited an exquisite specificity evidenced by their ability to discriminate antigens, the structures of which differ only by the isomeric

form of di-deoxyhexose. The antibody-modified **crystals** showed no loss in activity over 4 days under storage at 4°.
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 17 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:598142 HCAPLUS
DOCUMENT NUMBER: 135:176471
TITLE: European-like porcine reproductive and respiratory syndrome virus (PRRSV) RNA and protein sequences and methods of use for diagnosis and immunization
INVENTOR(S): Collins, James E.; Faaberg, Kay S.; Rossow, Kurt D.
PATENT ASSIGNEE(S): Regents of the University of Minnesota, USA
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001059077	A1	20010816	WO 2001-US4351	20010208
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1255815	A1	20021113	EP 2001-909090	20010208
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003086945	A1	20030508	US 2002-203224	20020807

PRIORITY APPLN. INFO.:
US 2000-181041P P 20000208
US 2000-193220P P 20000330
US 2000-206624P P 20000524
US 2000-215373P P 20000629
US 2001-260041P P 20010105
WO 2001-US4351 W 20010208

AB The present invention represents the identification of a novel porcine reproductive and respiratory syndrome virus (PRRSV). The PRRSV described herein was associated with a North American outbreak of mystery swine disease, but unexpectedly has a nucleotide sequence that has more similarity to European PRRSV strains. The invention provides an isolated RNA and encoded protein sequences for PRRSV. The present invention also provides methods for making antibodies to the PRRSV, methods for detecting PRRSV, immunogenic compns., and methods for treating a porcine subject at risk of infection by, or displaying symptoms of, a PRRSV infection.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 18 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:31734 HCAPLUS
DOCUMENT NUMBER: 134:99572
TITLE: Immuno-diagnostic test method for veterinary disease
INVENTOR(S): Li, Sam Fong Yau; Su, Xiaodi; Kwang, Jimmy; Low, Sharon; Liu, Wei
PATENT ASSIGNEE(S): Institute of Molecular Agrobiology, Singapore; Institute of Materials Research and Engineering
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001002858	A1	20010111	WO 1999-SG98	19991004
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
SG 93209	A1	20021217	SG 1999-3147	19990705
AU 9961278	A1	20010122	AU 1999-61278	19991004
GB 2369678	A1	20020605	GB 2002-1481	19991004
GB 2369678	B2	20031203		
DE 19983966	T	20030116	DE 1999-19983966	19991004
JP 2003503736	T2	20030128	JP 2001-508054	19991004

PRIORITY APPLN. INFO.: SG 1999-3147 A 19990705
WO 1999-SG98 W 19991004

AB The present invention provides a method for the qual. detection of viral or bacterial antibodies from animal body fluid, and an apparatus for performing the same. The apparatus according to one aspect includes a **piezoelec . crystal**, which is operated by an oscillation circuit, and the **resonant frequency** is measured by using a universal counter. According to another aspect, the recombinant viral or bacterial protein is immobilized on the surface of the said **Pz crystal** and acts as an antigen. In one embodiment, the presence or absence of viral or bacterial specific antibody may be determined using the fabricated **Pz** sensor by monitoring the **frequency** change signal. In another embodiment, the present method is proved to be inexpensive, simple and rapid.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 19 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:255465 HCAPLUS
DOCUMENT NUMBER: 135:75913
TITLE: Detection of foodborne pathogens using surface plasmon **resonance** biosensors
AUTHOR(S): Koubova, V.; Brynda, E.; Karasova, L.; Skvor, J.; Homola, J.; Dostalek, J.; Tobiska, P.; Rosicky, J.
CORPORATE SOURCE: Institute of Macromolecular Chemistry, Heyrovskeho nam. 2, Academy of Sciences, Prague, 162 06, Czech Rep.
SOURCE: Sensors and Actuators, B: Chemical (2001), B74(1-3), 100-105
CODEN: SABCEB; ISSN: 0925-4005
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Salmonella enteritidis** and Listeria monocytogenes were **detected** in real time using a surface plasmon **resonance**

(SPR) **sensor** based on prism excitation of surface plasmons and spectral interrogation. The resp. antibodies against the pathogens were immobilized on the gold **sensor** surface as a covalently crosslinked double-layer or covalently bound on a crosslinked albumin layer. Salmonella and Listeria could be **detected** by the **sensor** at concns. down to 106 cell/mL. The **sensor** sensitivity was comparable with that of standard ELISA in which the same antibodies were used.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 20 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:310756 HCAPLUS
DOCUMENT NUMBER: 135:104407
TITLE: **Piezoelectric quartz crystal** based veterinary diagnosis for **Salmonella enteritidis** infection in chicken and egg
AUTHOR(S): Su, X.; Low, S.; Kwang, J.; Chew, V. H. T.; Li, S. F. Y.
CORPORATE SOURCE: Institute of Material Research and Engineering, Singapore, 117602, Singapore
SOURCE: Sensors and Actuators, B: Chemical (2001), B75(1-2), 29-35
CODEN: SABCEB; ISSN: 0925-4005
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A **piezoelec. quartz crystal** (PQC) based screening test for **Salmonella enteritidis** infection in chickens and eggs is described. AT-cut **quartz crystals** of 10 MHz were used as reaction carrier, on which recombinantly expressed S. enteritidis proteins were immobilized to capture the associate antibodies from chicken serum or egg-white samples. Once the surface had been modified with antigen protein, only one sample incubation of 15-min duration was required to provide **frequency** changes corresponding to the binding of the target antibodies. Serum and egg-white samples from infected chickens produced significant binding with signal ranging from 200 to 900 Hz depending on the different antibody titer, whereas samples from non-infected chickens produced no or minimal **frequency** changes. A cut-off threshold, 180 Hz, was set up for the PQC sensor. With reference to this value, PQC sensors could screen chickens and eggs suspected to have been infected with S. enteritidis and to provide 'yes' or 'no' (e.g. pos. or neg.) results. The clin. sensitivity and specificity of the PQC sensors were 100% and 92.9%, resp. Comparison of sample testing results obtained from PQC sensors and licensed enzyme-linked immunoassay (ELISA) demonstrated that the PQC sensors could also be used to estimate the antibody titers. To perform dipping coating **quartz crystal** with precious protein, a micro container has been developed.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 21 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:911460 HCAPLUS
DOCUMENT NUMBER: 134:70354
TITLE: Detection of Salmonella enteritidis by detecting antibodies to fimbrial or flagellin proteins

INVENTOR(S): Kwang, Hwei-Sing; Liu, Wei; Low, Su-Shing Sharon; Loh, Kwang Yeng Hilda
PATENT ASSIGNEE(S): Institute of Molecular Agrobiology, Singapore
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000078995	A1	20001228	WO 1999-SG61	19990622
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9948172	A1	20010109	AU 1999-48172	19990622

PRIORITY APPLN. INFO.: WO 1999-SG61 A 19990622

AB A method for detecting Salmonella enteritidis in poultry and their eggs comprises contacting a biol. sample obtained from poultry suspected of containing S. enteritidis with a fragment of a S. enteritidis fimbrial protein or a fragment of a S. enteritidis flagellin protein which specifically recognizes S. enteritidis antibodies present in the sample and discriminates between S. enteritidis and other Salmonella spp.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 22 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:790681 HCAPLUS
DOCUMENT NUMBER: 133:345543
TITLE: Nucleic acid probes for detection and quantitation of bacteria in the family Enterobacteriaceae
INVENTOR(S): Hogan, James J.; Gordon, Patricia
PATENT ASSIGNEE(S): Gen-Probe Incorporated, USA
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000066785	A2	20001109	WO 2000-US12219	20000503
WO 2000066785	A3	20010405		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,				

DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6326486 B1 20011204 US 2000-565156 20000503

PRIORITY APPLN. INFO.: US 1999-132410P P 19990503

AB The invention provides oligonucleotide probes useful for specifically detecting bacteria in the family Enterobacteriaceae. Probes and accessory "helper oligonucleotides" are disclosed for use in hybridizing the rRNA and rDNA of Enterobacteriaceae without substantially cross-hybridizing with the rRNA of numerous otherbacterial and fungal species.

L75 ANSWER 23 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:553436 HCAPLUS

DOCUMENT NUMBER: 133:163028

TITLE: Compositions and methods for treating and preventing pathogenic bacterial infection based on the essential role of DNA methylation in bacterial virulence

INVENTOR(S): Mahan, Michael J.; Heithoff, Douglas M.; Low, David A.; Sinsheimer, Robert L.

PATENT ASSIGNEE(S): Regents of the University of California, USA

SOURCE: PCT Int. Appl., 114 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000045840	A1	20000810	WO 2000-US2866	20000202
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2359469	AA	20000810	CA 2000-2359469	20000202
BR 2000007966	A	20011106	BR 2000-7966	20000202
EP 1150711	A1	20011107	EP 2000-910070	20000202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002536339	T2	20021029	JP 2000-596959	20000202
NZ 512685	A	20031031	NZ 2000-512685	20000202
ZA 2001005305	A	20020627	ZA 2001-5305	20010627

PRIORITY APPLN. INFO.:
US 1999-241951 A 19990202
US 1999-305603 A 19990505
US 2000-495614 A 20000201
WO 2000-US2866 W 20000202

AB The present invention is directed towards vaccine compns. containing pathogenic bacteria such as Salmonella having non-reverting genetic mutations which alter activity of DNA adenine methylase (Dam) and methods using these compns. to elicit an immune response. The invention also provides methods for preparing vaccines as well as screening methods to identify agents which may have anti-bacterial activity.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 24 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:72531 HCAPLUS
DOCUMENT NUMBER: 134:97477
TITLE: Fast Diagnostic test paper strip for livestock and poultry pestilence
INVENTOR(S): Zhang, Gaiping; Guo, Junqing; Yang, Yanyan; Wang, Aiping; Yan, Yuhe; Li, Xuewu; Deng, Ruiguang; Li, Qingmei; Li, Lingxia; Yan, Hongliang
PATENT ASSIGNEE(S): Animal Husbandry & Veterinary Medicine Inst., Henan Prov. Academy of Agriculture, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 16 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1261670	A	20000802	CN 1999-101537	19990121
CN 1116608	B	20030730		

PRIORITY APPLN. INFO.: CN 1999-101537 19990121
AB The test paper consists of hydrophobic supporting layer and reactive reagent adsorption layer, and is divided successively into sample section, glass cotton fiber layer, glass cotton fiber layer adsorbing Au-labeled antibody against pestilence, cellulose membrane layer, and hydrophilic layer. The neg. or pos. stain is made by adsorbing pestilence-detecting standard antigen or its antibody solution with cellulose membrane layer. The supporting layer is from plastic sheet or hydrophobic paper. The glass cotton fiber layer and Au-labeled glass cotton fiber layer are covered by protective film. The test paper is used for detection of foot and mouth disease, rabies, pseudorabies, swine fever, porcine reproductive and respiratory syndrome, equine infection anemia, goat blue tongue, newcastle disease, Marek's disease, egg drop syndrome, infectious bronchitis, infectious laryngotracheitis, duck virus hepatitis, avian influenza, anthrax, and brucellosis.

L75 ANSWER 25 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:519224 HCAPLUS
DOCUMENT NUMBER: 134:82855
TITLE: Optical biosensors using surface plasmon **resonance**
AUTHOR(S): Homola, Jiri; Brynda, Eduard; Tobiska, Petr; Tichy, Ivo; Skvor, Jiri
CORPORATE SOURCE: Institute of Radio Engineering and Electronics, Acad. Sci. of Czech Republic, Prague, Czech Rep.
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2000), 4016(Photonics, Devices, and Systems), 130-135
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We present a surface plasmon **resonance sensor** base on prism excitation of surface plasmons and spectral interrogation. For specific **detection** of biomol. analytes, multilayers of monoclonal antibodies are immobilized on the surface of the **sensor**

. **Detection** of biomol. analytes such as human β 2-microglobulin, choriogonadotropin, hepatitis B surface antigen, **salmonella enteritidis** is demonstrated.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 26 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:659528 HCAPLUS
DOCUMENT NUMBER: 131:282380
TITLE: A general method of interstrain differentiation of bacteria based on direct repeat sequences
INVENTOR(S): Van Embden, Johannes Dirk Anthonie; Schouls, Leendert Marinus; Jansen, Rudolph
PATENT ASSIGNEE(S): Stichting voor de Technische Wetenschappen, Neth.; Seed Capital Investments-2 (Sci-2) B.V.
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9951771	A1	19991014	WO 1998-NL186	19980403
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2324979	AA	19991014	CA 1998-2324979	19980403
AU 9867501	A1	19991025	AU 1998-67501	19980403
EP 1066407	A1	20010110	EP 1998-912806	19980403
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: WO 1998-NL186 A 19980403

AB The subject invention lies in the field of interstrain differentiation of bacteria. A general method has been developed with which various types of bacteria can be differentiated into sep. individual strains. Organisms as diverse as the Archaebacteria (e.g., Methanococcus jannasschi, Haloferax mediterranei, cyanobacteria Calothrix, and Anabaena), purple bacteria, Mycobacterium tuberculosis, Thermus thermophilus, Archaeoglobus, and Thermotoga were found to possess a direct repeat (DR)-like sequence upon anal. of their genomes using the Patscan program. Thus, the previously described oligotyping method based on the DNA polymorphism of the Direct Repeat region of M. tuberculosis may be used for identification of bacteria in general. The method is based on a unique method of in vitro amplification of DNA sequences within the DR region and the hybridization of the amplified DNA with multiple, short synthetic DNAs within the DR region, and differs from previous PCR methods in the use of a set of primers with both primers having multiple priming sites. Thus in particular in the clin. setting this method can suitably be used to determine what strain of bacterium is present in a sample. This new method is applicable for discerning between various strains of both gram-neg. and gram-pos. types of bacteria. Hybridization patterns are provided for 17

Escherichia coli and 4 Salmonella typhimurium isolates.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 27 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:64975 HCAPLUS
DOCUMENT NUMBER: 130:134948
TITLE: PNA probes and surface plasmon **resonance** for detecting DNA
INVENTOR(S): Karube, Isao; Sawata, Shinya; Nagata, Ryohei
PATENT ASSIGNEE(S): Dai Nippon Printing Co., Ltd., Japan
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9902730	A1	19990121	WO 1998-JP3077	19980709
W: US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 11332595	A2	19991207	JP 1998-141433	19980522
EP 950718	A1	19991020	EP 1998-931022	19980709
R: DE, FR, GB, IT				
US 2003165953	A1	20030904	US 2003-334831	20030102

PRIORITY APPLN. INFO.:
JP 1997-183710 A 19970709
JP 1998-75350 A 19980324
JP 1998-141433 A 19980522
WO 1998-JP3077 W 19980709
US 1999-147791 B2 19990309
US 2000-749998 B1 20001229

AB Disclosed is a PCR-based method for detecting a target DNA sequence by a hybridization procedure using PNA (peptide nucleic acid) probes to replace the conventional DNA probes. The degree of hybridization is determined by surface plasmon **resonance** (SPR). The method reduces the influences of the salt concentration during signal detection and thus improves the sensitivity. The PNA probes may also be immobilized on the detector tips of SPR. Detection of pathogen Escherichia coli strain O-157 and other toxin-producing pathogens by this method was demonstrated.
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 28 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:840314 HCAPLUS
DOCUMENT NUMBER: 140:4062
TITLE: Porcine reproductive and respiratory syndrome virus (PRRSV) DNA vaccines
INVENTOR(S): Dea, Serge; Massie, Bernard
PATENT ASSIGNEE(S): Can.
SOURCE: Can. Pat. Appl., 61 pp., Division of Can. Pat. Appl. 2,240,779.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2410694	AA	19991216	CA 1998-2410694	19980616
CA 2240779	AA	19991216	CA 1998-2240779	19980616

PRIORITY APPLN. INFO.: CA 1998-2240779 A3 19980616

AB DNA vaccines comprising expression vectors and nucleic acid sequences encoding ORF proteins from porcine reproductive and respiratory syndrome virus (PRRSV) are described. The invention also provides methods of using these vaccines to immunize swine against porcine reproductive and respiratory syndrome (PRRS) and to detect PRRSV infection. The present invention also relates to host cells transformed with these vectors. The present invention further relates to the use of these vaccines to immunize swine against PRRSV infection, as transfer vectors to construct other expression vectors, and for diagnostic purposes.

L75 ANSWER 29 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:840313 HCAPLUS
DOCUMENT NUMBER: 140:4061
TITLE: Methods for preparing vaccines against porcine reproductive and respiratory syndrome virus (PRRSV)
INVENTOR(S): Dea, Serge; Massie, Bernard; Pirzadeh, Boroushan; Gagnon, Carl; Mardassi, Helmi
PATENT ASSIGNEE(S): Can.
SOURCE: Can. Pat. Appl., 67 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2240779	AA	19991216	CA 1998-2240779	19980616
CA 2410694	AA	19991216	CA 1998-2410694	19980616

PRIORITY APPLN. INFO.: CA 1998-2240779 A3 19980616

AB DNA vaccines comprising expression vectors and nucleic acid sequences encoding ORF proteins from porcine reproductive and respiratory syndrome virus (PRRSV) are described. The invention also provides methods of using these vaccines to immunize swine against porcine reproductive and respiratory syndrome (PRRS) and to detect PRRSV infection. The present invention also relates to host cells transformed with these vectors. The present invention further relates to the use of these vaccines to immunize swine against PRRSV infection, as transfer vectors to construct other expression vectors, and for diagnostic purposes.

L75 ANSWER 30 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:747617 HCAPLUS
DOCUMENT NUMBER: 130:1167
TITLE: PCR-based method for detecting target nucleotide sequence converted into partly double strands
INVENTOR(S): Karube, Isao; Sawata, Shinya; Nagata, Ryohei
PATENT ASSIGNEE(S): Dai Nippon Printing Co., Ltd., Japan
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9850581	A1	19981112	WO 1998-JP2039	19980508
W: US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 11332566	A2	19991207	JP 1998-123371	19980506
EP 915174	A1	19990512	EP 1998-919518	19980508
R: DE, FR, GB, IT				
US 6391546	B1	20020521	US 1998-147251	19981112
US 2003054378	A1	20030320	US 2002-103798	20020325

PRIORITY APPLN. INFO.:
JP 1997-117725 A 19970508
JP 1998-74442 A 19980323
JP 1998-123371 A 19980506
WO 1998-JP2039 W 19980508
US 1998-147251 A3 19981112

AB A method for detecting a target nucleotide sequence with improved sensitivity is described. This method involves the step of converting the target nucleotide sequence into a partly double-stranded nucleotide sequence via unsymetric amplification by PCR; and the step of detecting the partly double-stranded nucleotide sequence with a probe complementary to the target nucleotide sequence. The method was demonstrated by detecting type II verotoxin gene of enteropathogenic Escherichia coli O-157 using a surface plasmon **resonance** biosensor.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 31 OF 78 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:745092 HCAPLUS
DOCUMENT NUMBER: 130:13201
TITLE: Antigenic sites in porcine reproductive and respiratory syndrome virus for use in vaccines or diagnostic assays
INVENTOR(S): Van Nieuwstadt, Antonie Paul; Langeveld, Jan; Meulenberg, Janneke
PATENT ASSIGNEE(S): Stichting Instituut voor Dierhouderij en Diergezondheid, Neth.
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9850426	A1	19981112	WO 1998-NL251	19980505
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				

AU 9874571	A1	19981127	AU 1998-74571	19980505
AU 754938	B2	20021128		
EP 980387	A1	20000223	EP 1998-921916	19980505
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9809221	A	20000704	BR 1998-9221	19980505
JP 2000512313	T2	20000919	JP 1998-547938	19980505
RU 2220978	C2	20040110	RU 1999-125615	19980505
MX 9910185	A	20000630	MX 1999-10185	19991105
US 6495138	B1	20021217	US 1999-434476	19991105
PRIORITY APPLN. INFO.:			EP 1997-201343 A	19970506
			WO 1998-NL251 W	19980505

AB The authors disclose epitope mapping of the ORF4 and ORF7 proteins of swine infertility and respiratory syndrome virus (PRRSV) isolates. The antigenic sites are neutralizing, conserved, non-conserved and conformational, can elicit antibodies, and are found on protein GP4 (ORF4) and the nucleocapsid protein (ORF7). The peptide sequences identified can be incorporated in vaccines directed against PRRSV and in diagnostic tests for infection or vaccination.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l75 bib ab 32-78

L75 ANSWER 32 OF 78 MEDLINE on STN DUPLICATE 3
AN 2001410280 MEDLINE
DN 21229301 PubMed ID: 11329465
TI Antigenic importance of the carboxy-terminal beta-strand of the **porcine reproductive** and **respiratory** syndrome virus nucleocapsid protein.
AU Wootton S; Koljesar G; Yang L; Yoon K J; Yoo D
CS Department of Pathobiology, Ontario Veterinary College, University of Guelph, Guelph, Ontario N1G 2W1, Canada.
SO CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, (2001 May) 8 (3) 598-603. Journal code: 9421292. ISSN: 1071-412X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
OS GENBANK-AF066068; GENBANK-AF092283; GENBANK-U03040
EM 200107
ED Entered STN: 20010723
Last Updated on STN: 20010723
Entered Medline: 20010719
AB Five domains of antigenic importance were previously mapped on the nucleocapsid protein (N) of the **porcine reproductive** and **respiratory** syndrome virus (**PRRSV**), and a domain comprised of the 11 C-terminal-most amino acids (residues 112 to 123) was shown to be essential for binding of N-specific conformation-dependent monoclonal antibodies (MAbs). In the present study, the importance of individual residues within this C-terminal domain for antigenicity was investigated using eight different mutant constructs of N expressed in HeLa cells. Single amino acid substitutions were introduced into the C-terminal domain of the N protein, and the significance of individual amino acids for MAb reactivity was determined by immunoprecipitation. None of the MAbs **tested** recognized the mutant with a leucine-to-proline substitution at residue 114 (L114P), while V112P,

R113P, R113D, I115P, and R116P reduced MAb binding significantly. Conversely, substitution of amino acids at positions 118 (T118S) and 121 (P121A) had little effect on MAb binding. Secondary-structure predictions indicate that amino acids 111 to 117 form a beta-strand. In view of the fact that replacement of beta-strand-forming amino acids with proline elicited the **greatest** effect on MAb binding, it appears that secondary structure in the C terminus of the N protein is an important determinant of conformational epitope formation. While the **crystal** structure of the **PRRSV** N protein remains to be determined, results from these studies broaden our understanding of the secondary structures that make up the **PRRSV** N protein and shed some light on how they may relate to function.

L75 ANSWER 33 OF 78 MEDLINE on STN DUPLICATE 6
AN 2001030083 MEDLINE
DN 20362936 PubMed ID: 10907690
TI Evidence of porcine circovirus infection in pigs with wasting disease syndrome from 1985 to 1999 in Hokkaido, Japan.
AU Sato K; Shibahara T; Ishikawa Y; Kondo H; Kubo M; Kadota K
CS Hokkaido Research Station, National Institute of Animal Health, Toyohira, Sapporo, Japan.
SO JOURNAL OF VETERINARY MEDICAL SCIENCE, (2000 Jun) 62 (6) 627-33.
Journal code: 9105360. ISSN: 0916-7250.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200011
ED Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001120
AB An epizootiological survey with histopathological methods was conducted for porcine circovirus in 220 diseased pigs (1-200 days old) in 49 farms from 1985 to 1999. Histopathological lesions containing PCV antigen were **detected** mainly in the lymphoid tissues from 42 of 189 diseased pigs (22.2%) in 4 of 45 farms (8.9%) from 1990 to 1999. The rate of positive pigs gradually increased from 1997 onward and PCV infection was found in 50% of diseased pigs in 1999. Histopathologically, the lesions in the lymphoid tissues (including lymph nodes, Peyer's patches, tonsil and spleen) were highly correlated with the presence of numerous spherical basophilic intracytoplasmic inclusion bodies with PCV antigen, and consisted of lymphocellular depletion and infiltration of macrophages. Although most affected cells showed cytoplasmic reactivity for PCV, intranuclear antigen was also seen in the lymphocytes, macrophages and ileal epithelial cells. Ultrastructurally, macrophages and giant cells contained electron-dense, round to ovoid lysosomal bodies, in which there were concentric circle or **paracrystalline** arrays of small nonenveloped icosahedral viral particles, approximately 15-17 nm in diameter. Other consistent infectious agents were present in 90.5% of cases, and **porcine reproductive** and **respiratory** syndrome virus infection was in 52.4% of the cases with PCV. The histopathological findings suggested that PCV induced systemic immunosuppression in the infected pigs and made them more susceptible to infection of the organisms. Because of the presence of PCV antigens in the intestinal epithelium, feces may play a significant role in dissemination of PCV.

L75 ANSWER 34 OF 78 MEDLINE on STN DUPLICATE 7

AN 2000256420 MEDLINE
DN 20256420 PubMed ID: 10798562
TI The role of SEF14 and SEF17 fimbriae in the adherence of **Salmonella** enterica serotype **Enteritidis** to inanimate surfaces.
AU Woodward M J; Sojka M; Sprigings K A; Humphrey T J
CS Department of Bacteriology, Veterinary Laboratories Agency (Weybridge), Addlestone, Surrey.. mwoodward.cvl.wood@gtnet.gov.uk
SO JOURNAL OF MEDICAL MICROBIOLOGY, (2000 May) 49 (5) 481-7. Journal code: 0224131. ISSN: 0022-2615.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200005
ED Entered STN: 20000518
Last Updated on STN: 20000518
Entered Medline: 20000509
AB To gain an understanding of the role of fimbriae and flagella in the adherence of **Salmonella** enterica serotype **Enteritidis** to inanimate surfaces, the extent of adherence of viable wild-type strains to a polystyrene microtitration plate was determined by a **crystal** violet staining **assay**. Elaboration of surface antigens by adherent bacteria was **assayed** by fimbriae- and flagella-specific ELISAs. Wild-type Enteritidis strains adhered well at 37 degrees C and 25 degrees C when grown in microtitration wells in Colonisation Factor Antigen broth, but not in other media **tested**. At 37 degrees C, adherent bacteria elaborated copious quantities of SEF14 fimbrial antigen, whereas at 25 degrees C adherent bacteria elaborated copious quantities of SEF17 fimbrial antigen. Non-fimbriate and non-flagellate knock-out mutant strains were also assessed in the adherence **assay**. Mutant strains unable to elaborate SEF14 and SEF17 fimbriae adhered poorly at 37 degrees C and 25 degrees C, respectively, but adherence was not abolished. Non-motile mutant strains showed reduced adherence whilst type-1, PEF and LPF fimbriae appeared not to contribute to adherence in this **assay**. These data indicate that SEF17 and SEF14 fimbriae mediate bacterial cell aggregation on inanimate surfaces under appropriate growth conditions.

L75 ANSWER 35 OF 78 MEDLINE on STN DUPLICATE 10
AN 1998422529 MEDLINE
DN 98422529 PubMed ID: 9748388
TI Antimicrobial activity of 8-alkyl- and 8-phenyl-substituted berberines and their 12-bromo derivatives.
AU Iwasa K; Lee D U; Kang S I; Wiegrebe W
CS Kobe Pharmaceutical University, 4-19-1 Motoyamakita, Higashinada-ku, Kobe 658-8558, Japan.. K-iwasa@kobepharma-u.ac.jp
SO JOURNAL OF NATURAL PRODUCTS, (1998 Sep) 61 (9) 1150-3. Journal code: 7906882. ISSN: 0163-3864.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199811
ED Entered STN: 19990115
Last Updated on STN: 19990115
Entered Medline: 19981130
AB The 8-alkyl- (3-6), 8-phenyl- (7), 12-bromo- (8), 8-alkyl-12-bromo-

(9-12), and 12-bromo-8-phenyl- (13) berberine derivatives were prepared and **tested** for their antimicrobial activity in vitro to evaluate structure-activity relationships. Introduction of the alkyl or phenyl group and the bromine atom into the C-8 and C-12 positions of berberine (1), respectively, led to significant increases of the antimicrobial activity. In both the 8-alkyl- and 8-alkyl-12-bromo-berberines (3-6 and 9-12, respectively), the antibacterial activity increased as the length of the aliphatic chain increased. The exception was the activity against Candida albicans and Escherichia coli, which did not always increase as the alkyl side chain lengthened. Among the compounds **tested**, 12-bromo-8-n-hexylberberine (12) was 64, 256, 128, 16, and 32 times more active against Staphylococcus aureus, Bacillus subtilis, **Salmonella enteritidis**, E. coli, and C. albicans, respectively, in comparison to the clinically used berberine. Compound 12 was also found to be 8, 16, and 128 times more active against S. aureus, S. enteritidis, and C.albicans, respectively, than kanamycin sulfate, but was of the same order of activity against B. subtilis, and only one-fourth as active against E. coli.

L75 ANSWER 36 OF 78 MEDLINE on STN
AN 2002492278 MEDLINE
DN 22240627 PubMed ID: 12353635
TI Isolation of antimicrobial compounds from guava (Psidium guajava L.) and their structural elucidation.
AU Arima Hidetoshi; Danno Gen-ichi
CS Division of Life Science, Graduate School of Science and Technology, Kobe University, Japan.
SO BIOSCIENCE, BIOTECHNOLOGY, AND BIOCHEMISTRY, (2002 Aug) 66 (8) 1727-30. Journal code: 9205717. ISSN: 0916-8451.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200304
ED Entered STN: 20021001
Last Updated on STN: 20030416
Entered Medline: 20030414
AB Four antibacterial compounds were isolated from leaves of guava (Psidium guajava L.), and the structures of these compounds were established on the basis of chemical and spectroscopic evidence. Two new flavonoid glycosides, morin-3-O-alpha-L-lyxopyranoside and morin-3-O-alpha-L-arabopyranoside, and two known flavonoids, guaijavarin and quercetin, were identified. The minimum inhibition concentration of morin-3-O-alpha-L-lyxopyranoside and morin-3-O-alpha-L-arabopyranoside was 200 microg/ml for each against **Salmonella enteritidis**, and 250 microg/ml and 300 microg/ml against Bacillus cereus, respectively.

L75 ANSWER 37 OF 78 MEDLINE on STN
AN 2002662815 MEDLINE
DN 22309969 PubMed ID: 12423035
TI Effect of formalin fixation on the immunohistochemical **detection** of PRRS virus antigen in experimentally and naturally infected pigs.
AU Van Alstine W G; Popielarczyk M; Albregts S R
CS Department of Veterinary Pathobiology, School of Veterinary Medicine, Purdue University, W. Lafayette, IN 47909-1175, USA.
SO JOURNAL OF VETERINARY DIAGNOSTIC INVESTIGATION, (2002 Nov) 14 (6) 504-7. Journal code: 9011490. ISSN: 1040-6387.
CY United States

DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200302
ED Entered STN: 20021109
Last Updated on STN: 20030226
Entered Medline: 20030225

AB The purpose of this study was to determine the effect of formalin fixation on the immunohistochemical **detection** of porcine reproductive and respiratory syndrome (PRRS) viral antigen in lungs of experimentally and naturally infected pigs. In separate trials, five 24-day-old pigs and six 10-day-old pigs were housed as separate groups in isolation and inoculated intranasally with 10(5.5) TCID50 of an isolate of PRRS virus (PRRSV; P129). The older and younger pigs were euthanatized at 7 and 10 days post inoculation (dpi), respectively. At necropsy, all pigs had gross and microscopic lung lesions typical of PRRS, and PRRSV was isolated from all pigs. To insure uniform fixation, lungs from each pig were cut into 1-cm-thick slices and immersed into 10% neutral-buffered formalin. After fixation in formalin for 8 hours or 1, 2, 3, 5, 6, 8, 10, and 15 days, 3 lung sections from some or all pigs were processed for histological examination using routine methods. Immunohistochemical staining for PRRSV antigen was positive at the following times (days unless otherwise stated) after fixation (percentage of pigs staining positive for PRRSV in parentheses): 8 hours (100); 1 (100); 2 (100); 3 (80); 5 (33); and 6, 8, 10, and 15 (0-all negative). To further evaluate the effects of formalin fixation on PRRSV **immunodetection**, 31 field cases of PRRS were selected for immunohistochemistry (IHC). Over a 3-month period, submitted cases were selected from the Purdue University Animal Disease Diagnostic Laboratory, W. Lafayette, Indiana, for IHC if 1) the clinical history included respiratory disease, 2) PRRSV was isolated from lung and/or serum from the submitted pigs or tissues, 3) at least 1 section of lung fixed in 10% neutral-buffered formalin was submitted for IHC, and 4) the duration of fixation could be accurately determined from the case history. Of the 31 PRRSV-infected pig cases meeting the selection criteria, 23 were fixed in formalin for 4 days or less. Twenty-one of these 23 (91%) were positive by IHC. Two of 8 cases fixed for greater than 4 days (25%) were positive by IHC. In practical terms, 1-day shipping of fixed samples to a laboratory followed by routine tissue processing within a laboratory should not adversely affect immunohistochemical **detection** of PRRS viral antigen. But a delay in shipping or processing of more than 2 days could reduce or prevent the **detection** of PRRS viral antigen by IHC.

L75 ANSWER 38 OF 78 MEDLINE on STN
AN 2002169527 MEDLINE
DN 21898764 PubMed ID: 11900956
TI Characterization of the carrier state in porcine reproductive and respiratory syndrome virus infection.
AU Horter Dennis C; Pogranichniy Roman M; Chang Chih-Cheng; Evans Richard B; Yoon Kyoung-Jin; Zimmerman Jeffrey J
CS Department of Veterinary Microbiology and Preventive Medicine, College of Veterinary Medicine, Iowa State University, Ames, IA 50011, USA.
SO VETERINARY MICROBIOLOGY, (2002 May 1) 86 (3) 213-28.
Journal code: 7705469. ISSN: 0378-1135.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals

EM 200208
ED Entered STN: 20020320
Last Updated on STN: 20020809
Entered Medline: 20020808
AB Porcine reproductive and respiratory syndrome (PRRS) virus infection results in clinically normal, but persistently infected animals. An understanding of the carrier state is necessary for prevention, control and/or elimination of PRRS virus. The objective of this experiment was to estimate the proportion of PRRS virus carriers over time and determine which combination of sample and diagnostic **assay** could most effectively identify persistently infected animals. Sixty 3-week-old pigs were inoculated with PRRS virus ATCC VR-2332 and followed for up to 105 days post-inoculation (PI). Sixty age-matched animals served as uninoculated controls. Samples (serum, peripheral blood leukocytes, oropharyngeal scrapings, tonsil, bronchoalveolar lavage, lung tissue and tracheobronchial lymph nodes) were collected periodically and **tested** for evidence of PRRS virus infection by virus isolation (VI), swine **bioassay** and reverse transcriptase-nested polymerase chain reaction (RT-nPCR). The PRRS virus-specific antibody response was monitored with a commercial enzyme-linked immunosorbent **assay** (ELISA). Overall, PRRS virus was found in 51 of the 59 (84%) necropsied animals by VI or swine **bioassay** between 63 and 105 days PI, including 10 of the 11 (91%) of animals at day 105 PI. RT-nPCR on oropharyngeal scrapings was the most effective combination of **assay** and sample for **detecting** carriers. There was no significant difference in the antibody response of carrier vs. non-carrier animals. Infectious PRRS virus is present in most pigs the first 105 days following infection. Antibody response, as measured by a commercial ELISA, cannot be used to determine carrier status. RT-nPCR is a useful tool for **detection** of carriers, but diagnostic sample selection is critical if false negative results are to be avoided.

L75 ANSWER 39 OF 78 MEDLINE on STN
AN 2003163312 MEDLINE
DN 22567102 PubMed ID: 12680638
TI The diagnostic sensitivity of immunohistochemistry for the **detection** of porcine reproductive and respiratory syndrome virus in the lung of vaccinated and unvaccinated swine.
AU Yaeger Michael J
CS Department of Veterinary Diagnostic and Production Animal Medicine, College of Veterinary Medicine, Iowa State University, Ames, IA 50011, USA.
SO JOURNAL OF VETERINARY DIAGNOSTIC INVESTIGATION, (2002 Jan) 14 (1) 15-9. Journal code: 9011490. ISSN: 1040-6387.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200305
ED Entered STN: 20030409
Last Updated on STN: 20030531
Entered Medline: 20030530
AB Immunohistochemistry (IHC) is used routinely to **detect** porcine reproductive and respiratory syndrome virus (PRRSV) in the lung of nursery and grow/finish pigs with respiratory disease and has been reported to be highly specific (100%) but only moderately sensitive (67%). When multiple sections of lung are examined from field cases of porcine pneumonia, it is common to **detect** PRRSV antigen in only 1 or 2 of the sections.

This study was undertaken to determine the impact of the number of lung sections evaluated on the diagnostic sensitivity of IHC for the **detection** of PRRSV in vaccinated and unvaccinated swine. Five anterioventral sections of lung from animals experimentally challenged with PRRSV were evaluated on a single IHC slide. Utilizing a beta binomial model, observed results were used to calculate the probability of **detecting** PRRSV with IHC as a function of the number of lung sections assessed. Results demonstrate that the diagnostic sensitivity of PRRSV IHC is dependent on the number of lung sections examined. In unvaccinated pigs, a beta binomial model predicts that if a single lung section were evaluated, PRRSV would likely be confirmed in only 48% of infected animals, and at least 5 sections of anterioventral lung would need to be assessed to **detect** >90% of PRRSV-infected pigs. Vaccination resulted in significantly lower gross and microscopic lung lesion scores and significantly fewer antigen-positive cells. In vaccinated swine, the calculated probability of **detecting** a PRRSV-infected pig with IHC when a single lung section is evaluated was only 14%. If PRRSV is a primary concern, diagnosticians should collect at least 5 anterioventral sections of lung from each pig to be evaluated on a single IHC slide. This approach will diminish the number of false-negative results obtained with this method of antigen **detection.**

L75 ANSWER 40 OF 78 MEDLINE on STN
AN 2001477414 MEDLINE
DN 21412117 PubMed ID: 11520236
TI Verbalactone, a new macrocyclic dimer lactone from the roots of Verbascum undulatum with antibacterial activity.
AU Magiatis P; Spanakis D; Mitaku S; Tsitsa E; Mentis A; Harvala C
CS Laboratory of Pharmacognosy, Department of Pharmacy, University of Athens Panepistimiopolis Zografou, GR-15771 Athens, Greece.
SO JOURNAL OF NATURAL PRODUCTS, (2001 Aug) 64 (8) 1093-4.
Journal code: 7906882. ISSN: 0163-3864.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200110
ED Entered STN: 20010827
Last Updated on STN: 20011029
Entered Medline: 20011025
AB A novel macrocyclic dimer lactone, named verbalactone, was isolated from the roots of Verbascum undulatum and exhibited interesting antibacterial activity. It is the first time that 1,7-dioxacyclododecane is reported as the ring system of a natural product. The structure and the absolute stereochemistry of the new compound were determined by spectral methods and chemical correlation.

L75 ANSWER 41 OF 78 MEDLINE on STN
AN 2001364393 MEDLINE
DN 21317967 PubMed ID: 11425255
TI Diagnostic investigation of chronic porcine reproductive and respiratory syndrome virus in a breeding herd of pigs.
CM Erratum in: Vet Rec 2001 Jul 21;149(3):90
AU Bierk M D; Dee S A; Rossow K D; Collins J E; Guedes M I; Pijoan C; Molitor T W
CS Department of Clinical and Population Sciences, University of Minnesota College of Veterinary Medicine, St Paul 55108, USA.

SO VETERINARY RECORD, (2001 Jun 2) 148 (22) 687-90.
Journal code: 0031164. ISSN: 0042-4900.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200111
ED Entered STN: 20011105
Last Updated on STN: 20020121
Entered Medline: 20011101
AB Forty-five sows and 15 boars were selected at random from a breeding herd known to be chronically infected with porcine reproductive and respiratory syndrome virus (PRRSV) and lymphoid, immune-privileged, and non-lymphoid/non-immune-privileged tissues were **tested** for the presence of the virus by PCR, virus isolation, and immunohistochemistry. The virus was isolated from the lateral retropharyngeal lymph node of one sow; the isolate was nucleic acid sequenced and determined to be of field origin, and it was inoculated into two PRRSV-naive pregnant sows (A and B) at 95 days of gestation. They were necropsied 14 days later and samples of maternal and fetal tissue and blood samples were collected. Sow A had 10 fresh, six partially autolysed, and two mummified fetuses, and sow B had six fresh and viable fetuses. Viral nucleic acid was **detected** by PCR in tissue pools from each sow and also from pooled fetal tissues, and the virus was isolated from fetal pools from sow A.

L75 ANSWER 42 OF 78 MEDLINE on STN
AN 2002039615 MEDLINE
DN 21609172 PubMed ID: 11765327
TI Establishment of a PRRS virus ELISA-negative boar population using previously exposed boars.
AU Dee S; Deen J
SO VETERINARY RECORD, (2001 Dec 1) 149 (22) 678-80.
Journal code: 0031164. ISSN: 0042-4900.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200207
ED Entered STN: 20020124
Last Updated on STN: 20020730
Entered Medline: 20020729

L75 ANSWER 43 OF 78 MEDLINE on STN
AN 2002047234 MEDLINE
DN 21631036 PubMed ID: 11774499
TI **Detection** of antibodies to the nucleocapsid protein of PRRS virus by a competitive ELISA.
AU Dea S; Wilson L; Therrien D; Cornaglia E
CS Centre de Microbiologie et Biotechnologie, INRS-Institut Armand-Frappier, Universite du Quebec, Laval, Qc., Canada.
SO ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY, (2001) 494 401-5.
Journal code: 0121103. ISSN: 0065-2598.
CY United States
DT (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200207

ED Entered STN: 20020125
Last Updated on STN: 20020720
Entered Medline: 20020719

L75 ANSWER 44 OF 78 MEDLINE on STN
AN 2001472475 MEDLINE
DN 21118529 PubMed ID: 11227190
TI An evaluation of **test** and removal for the elimination of porcine reproductive and respiratory syndrome virus from 5 swine farms.
AU Dee S A; Bierk M D; Deen J; Molitor T W
CS Department of Clinical and Population Sciences, University of Minnesota College of Veterinary Medicine, St. Paul 55108, USA.. deexx004@tc.umn.edu
SO CANADIAN JOURNAL OF VETERINARY RESEARCH, (2001 Jan) 65 (1) 22-7.
Journal code: 8607793. ISSN: 0830-9000.
CY Canada
DT (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200108
ED Entered STN: 20010827
Last Updated on STN: 20010827
Entered Medline: 20010823
AB The objective of this field study was to evaluate the protocol of **test** and removal (T&R) for the elimination of porcine reproductive and respiratory syndrome virus (PRRSV) from 5 chronically infected breeding herds. The T&R protocol involved sampling the entire breeding herd in one day, **testing** sera by polymerase chain reaction and ELISA to **detect** previously exposed and/or infected animals, and subsequently removing them from the herd. Following completion of T&R, breeding herds were monitored for 12 consecutive months, using ELISA, for the presence of antibodies to PRRSV. In order to be classified as a PRRSV-negative herd, all samples collected over the 12-month monitoring period were required to be negative by ELISA (s/p ratio < 0.4). At the conclusion of the monitoring period, all 5 farms were PRRSV-negative, according to the defined **testing** criteria. Approximately 2.2% (74/3408) ELISA false positive samples were **detected** across all 5 farms during the monitoring period. The diagnostic cost required during the T&R protocol was approximately US $10.66 per animal **tested.** Limitations of the study were a lack of herds with large (> 2000 sows) breeding herd inventories, and herds with a history of PRRSV vaccination.

L75 ANSWER 45 OF 78 MEDLINE on STN
AN 2000425602 MEDLINE
DN 20342566 PubMed ID: 10882676
TI Development of a recombinant nucleoprotein-based enzyme-linked immunosorbent **assay** for quantification of antibodies against porcine reproductive and respiratory syndrome virus.
AU Witte S B; Chard-Bergstrom C; Loughin T A; Kapil S
CS Department of Diagnostic Medicine/Pathobiology, College of Veterinary Medicine, Kansas State University, Manhattan, Kansas 66506, USA.
SO CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, (2000 Jul) 7 (4) 700-2.
Journal code: 9421292. ISSN: 1071-412X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200009

ED Entered STN: 20000922
Last Updated on STN: 20000922
Entered Medline: 20000912

AB A rapid, inexpensive enzyme-linked immunosorbent **assay** (ELISA) to quantitate antibodies to porcine respiratory and reproductive syndrome virus (PRRSV) in serum was developed using a recombinant PRRSV nucleoprotein (rN). The sensitivity (85.3%) and specificity (81.7%) of the Kansas State University ELISA were good, correlating well (82.4%) with the IDEXX HerdChek ELISA.

L75 ANSWER 46 OF 78 MEDLINE on STN
AN 2001076150 MEDLINE
DN 20406971 PubMed ID: 10952439
TI Highly cited article published in the Veterinary Quarterly in 1991.
AU Elsinghorst T A; Sybesma W
SO VETERINARY QUARTERLY, (2000 Jul) 22 (3) 122.
Journal code: 7909485. ISSN: 0165-2176.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200101
ED Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010111

AB In early 1991, the Dutch pig industry was struck by the so-called mystery swine disease. Large-scale laboratory investigations were undertaken to search for the aetiological agent. We focused on isolating viruses and mycoplasmas, and we **tested** paired sera of affected sows for antibodies against ten known pig viruses. The mycoplasmas M. hysonoviae, M. hyopneumoniae, and Acheloplasma laidlawii, and the viruses encephalomyocarditis virus and porcine enterovirus types 2 and 7 were isolated from individual pigs. An unknown agent however, was isolated from 16 of 20 piglets and from 41 of 63 sows. This agent was characterized as a virus and designated Lelystad virus. No relationship between this virus and other viruses has yet been established. Of 165 sows reportedly affected by the disease, 123 (75 per cent) seroconverted to Lelystad virus, whereas less than 10 per cent seroconverted to any of the other virus isolates or to known viral pathogens. Antibodies directed against Lelystad virus were also found in pigs with mystery swine disease in England, Germany, and the United States. We conclude that infection with Lelystad virus is the likely cause of mystery swine disease.

L75 ANSWER 47 OF 78 MEDLINE on STN
AN 2000152642 MEDLINE
DN 20152642 PubMed ID: 10690783
TI Diagnostic performance of a reverse transcription-polymerase chain reaction **test** for porcine reproductive and respiratory syndrome virus.
AU Wagstrom E A; Yoon K J; Cook C; Zimmerman J J
CS Department of Veterinary Diagnostic and Production Animal Medicine, College of Veterinary Medicine, Iowa State University, Ames 50011, USA.
SO JOURNAL OF VETERINARY DIAGNOSTIC INVESTIGATION, (2000 Jan) 12 (1) 75-8.
Journal code: 9011490. ISSN: 1040-6387.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals

EM 200003
ED Entered STN: 20000330
Last Updated on STN: 20000330
Entered Medline: 20000321

L75 ANSWER 48 OF 78 MEDLINE on STN
AN 2000189172 MEDLINE
DN 20189172 PubMed ID: 10726638
TI A brief review of procedures and potential problems associated with the diagnosis of porcine reproductive and respiratory syndrome.
AU Mengeling W L; Lager K M
CS Virology Swine Research Unit, National Animal Disease Center, USDA, Agricultural Research Service, Ames, Iowa 50010, USA..
wmengeli@nadc.ars.usda.gov
SO VETERINARY RESEARCH, (2000 Jan-Feb) 31 (1) 61-9. Ref: 7
Journal code: 9309551. ISSN: 0928-4249.
CY France
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 200004
ED Entered STN: 20000421
Last Updated on STN: 20000421
Entered Medline: 20000413
AB Experience has shown that, for a number of reasons, a diagnosis of porcine reproductive and respiratory syndrome (PRRS) is sometimes difficult. In this review we discuss: (1) field observations and laboratory **tests** that are useful in arriving at a definitive diagnosis; (2) the impact of so-called atypical PRRS on diagnostic procedures in North America; (3) the means by which diagnostic problems can often be circumvented by appropriate sample selection; and (4) methods used for presumptive identification of PRRS virus strains.

L75 ANSWER 49 OF 78 MEDLINE on STN
AN 2001039312 MEDLINE
DN 20385117 PubMed ID: 10925037
TI Rapid **detection** of porcine reproductive and respiratory syndrome viral nucleic acid in blood using a fluorimeter based PCR method.
AU Spagnuolo-Weaver M; Walker I W; Campbell S T; McNeilly F; Adair B M; Allan G M
CS Department of Veterinary Sciences, The Queen's University of Belfast, BT 4 3SD, Northern Ireland, UK.
SO VETERINARY MICROBIOLOGY, (2000 Sep 15) 76 (1) 15-23.
Journal code: 7705469. ISSN: 0378-1135.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200011
ED Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001127
AB Porcine reproductive and respiratory syndrome virus (PRRSV) is an Arterivirus recognised world wide as an important cause of reproductive failure and pneumonia in pigs. American and European strains of PRRSV, differentiated antigenically and genomically, have been reported. PRRSV

infections are currently diagnosed using serology, virus isolation and/or immunocytochemistry. In order to overcome various drawbacks associated with these techniques, conventional, block-based RT-PCR methods for the **detection** of PRRSV nucleic acid in clinical samples have been described. These methods require gel electrophoresis for analysis of PCR products and present high risk of DNA carry-over contamination between the samples **tested**. We describe the **detection** of PRRSV RNA in serum samples and in blood impregnated filter disks (FDs), obtained from experimentally inoculated pigs, using a closed-tube, fluorimeter-based PCR **assay**. The **assay** eliminates the use of gel electrophoresis, and is as sensitive and specific as the conventional block-based PCR **assay, detecting** positive samples as early as 1 day post-inoculation. We also report a rapid fluorimeter based PCR method for differentiating American and European strains of PRRSV.

L75 ANSWER 50 OF 78 MEDLINE on STN
AN 2000150297 MEDLINE
DN 20150297 PubMed ID: 10684752
TI Simultaneous serological evidence of Actinobacillus pleuropneumoniae, PRRS, Aujeszky's disease and influenza viruses in Spanish finishing pigs.
AU Gutierrez-Martin C B; Rodriguez-Delgado O; Alvarez-Nistal D; De La Puente-Redondo V A; Garcia-Rioja F; Martin-Vicente J; Rodriguez Ferri E F
CS Microbiology and Immunology Section. Department of Animal Health. Faculty of Veterinary Medicine, University of Leon, 24071 - Leon, Spain.
SO RESEARCH IN VETERINARY SCIENCE, (2000 Feb) 68 (1) 9-13.
Journal code: 0401300. ISSN: 0034-5288.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; AIDS
EM 200003
ED Entered STN: 20000407
Last Updated on STN: 20000407
Entered Medline: 20000329
AB A total of 198 pigs with tachypnoea and temperature >/= 40 degrees C were selected on a Spanish finishing unit, and their sera were examined for antibodies to Actinobacillus pleuropneumoniae (App), porcine reproductive and respiratory syndrome virus (PRRSV), Aujeszky' disease virus (ADV), and swine influenza virus (SIV). Eighty-nine point nine per cent of the pigs were seropositive to App, 88.6 per cent to PRRS, 73.0 per cent to ADV, and 30.6 per cent to SIV. Thirty-one pigs (15.6 per cent) were seropositive for App, PRRSV, ADV and SIV, and only one (0.5 per cent) was seronegative for all. Statistical association was assessed for dual infections but it was not found in any case (P > 0.05). Other parameters (dyspnoea, nasal discharge and coughing) were also recorded, and no significant associations between them and the presence of antibodies against any of the four infections was found.

L75 ANSWER 51 OF 78 MEDLINE on STN
AN 1999335785 MEDLINE
DN 99335785 PubMed ID: 10407470
TI Restriction fragment length polymorphism analysis of strains of porcine reproductive and respiratory syndrome virus by use of a nested-set reverse transcriptase-polymerase chain reaction.
AU Umthun A R; Mengeling W L

CS Virology Swine Research Unit, National Animal Disease Center, USDA, Ames, IA 50010, USA.
SO AMERICAN JOURNAL OF VETERINARY RESEARCH, (1999 Jul) 60 (7) 802-6.
Journal code: 0375011. ISSN: 0002-9645.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199909
ED Entered STN: 19990913
Last Updated on STN: 19990913
Entered Medline: 19990902
AB OBJECTIVE: To increase the timeliness and sensitivity of a procedure that uses viral nucleic acid amplification followed by restriction fragment length polymorphism (RFLP) analysis for identifying strains of porcine reproductive and respiratory syndrome virus (PRRSV). SAMPLE POPULATION: 24 strains of PRRSV. PROCEDURE: A nested-set reverse transcriptase-polymerase chain reaction (RT-PCR) was developed and compared with a nonnested-set RT-PCR for sensitivity in amplifying known quantities of infective PRRSV. Once reaction conditions were optimized, the nested-set RT-PCR was **tested** for effectiveness with 24 strains of PRRSV isolated from swine. RESULTS: The nested-set RT-PCR was 100- to 1,000-fold more sensitive than the nonnested-set RT-PCR, **detecting** as little as 1 infective unit of PRRSV/ml of sample. It also was generally as sensitive as the combination of steps, namely virus isolation or propagation and nonnested-set RT-PCR, currently used routinely for amplifying PRRSV prior to RFLP analysis, and it was effective for amplifying all of the 24 strains of PRRSV **tested**. Using this RT-PCR, all **tests** were completed within 1.5 days (including RFLP analysis), compared with the > 7 days often required for the currently used method involving virus isolation and propagation. CONCLUSIONS: The nested-set RT-PCR was generally as sensitive as the combination of methods now used for PRRSV amplification prior to RFLP analysis, and it can markedly reduce the time required for **testing**. CLINICAL RELEVANCE: Presumptive identification of PRRSV strains can be provided in a more timely manner by use of a nested-set RT-PCR.

L75 ANSWER 52 OF 78 MEDLINE on STN
AN 2003428017 MEDLINE
DN 22848995 PubMed ID: 12968750
TI Characterization of antibody response to porcine reproductive and respiratory syndrome virus ORF5 product following infection and evaluation of its diagnostic use in pigs.
AU Kwang J; Yang S; Osorio F A; Christian S; Wheeler J G; Lager K M; Low S; Chang L; Doster A R; White A; Wu C C
CS USDA/ARS, Meat Animal Research Center, Clay Center, NE 68933, USA.
SO JOURNAL OF VETERINARY DIAGNOSTIC INVESTIGATION, (1999 Sep) 11 (5) 391-5.
Journal code: 9011490. ISSN: 1040-6387.
CY United States
DT (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200309
ED Entered STN: 20030913
Last Updated on STN: 20030924
Entered Medline: 20030923
AB The sensitivity and specificity of recombinant open reading frame 5

products used in the Western blotting **assay** for confirmation of porcine reproductive and respiratory syndrome virus (PRRSV) serologic status were evaluated. The recombinant antigen-based **assays** were specifically compared with a commercial enzyme-linked immunosorbent **assay** (ELISA) for PRRSV antibodies using 1) PRRSV antibody-negative reference sera (n = 30), 2) naturally infected pig sera (n = 40), 3) sequential sera obtained from 24 experimentally infected pigs, and 4) sera submitted to 3 state diagnostic laboratories (n = 200). The recombinant antigen **assay** yielded an average increased sensitivity of 10% over the commercial PRRSV ELISA. The negative controls (group 1 sera) showed no difference between the 2 **assays**. This comparison confirmed that the recombinant antigen-specific **assay** was more sensitive than the commercial ELISA and is well suited for routine confirmation of the presence of PRRSV antibodies.

L75 ANSWER 53 OF 78 MEDLINE on STN
AN 1999114691 MEDLINE
DN 99114691 PubMed ID: 9918159
TI Diagnostic implications of concurrent inoculation with attenuated and virulent strains of porcine reproductive and respiratory syndrome virus.
AU Mengeling W L; Lager K M; Wesley R D; Clouser D F; Vorwald A C; Roof M B
CS Virology Swine Research Unit, National Animal Disease Center, USDA, Agricultural Research Unit, Ames, IA 50010, USA.
SO AMERICAN JOURNAL OF VETERINARY RESEARCH, (1999 Jan) 60 (1) 119-22. Journal code: 0375011. ISSN: 0002-9645.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199904
ED Entered STN: 19990426
Last Updated on STN: 19990426
Entered Medline: 19990413
AB OBJECTIVE: To determine the predominant strain of progeny virus in samples obtained from cell cultures and pigs exposed simultaneously to attenuated and virulent strains of porcine reproductive and respiratory syndrome virus (PRRSV). SAMPLE POPULATION: Cell cultures and twenty 4-week-old pigs. PROCEDURE: Cell cultures and pigs were simultaneously exposed to various relative concentrations of an attenuated, cell-culture-adapted vaccine strain and a virulent field strain of PRRSV. Progeny virus obtained at selected intervals thereafter was **tested** to determine strain identity by use of restriction fragment length polymorphism (RFLP) analysis. RESULTS: Progeny virus from infected cell cultures comprised the attenuated strain, alone or in combination with the virulent strain, except when cultures had been exposed to a large excess (> 100,000-fold) of the virulent strain. Progeny virus from infected pigs comprised only the virulent strain regardless of the relative concentrations of the 2 strains to which the pigs had been exposed. CONCLUSIONS: During concurrent replication in cell cultures, the attenuated strain quickly predominated. Conversely, during concurrent replication in pigs, the virulent strain quickly predominated. CLINICAL RELEVANCE: It is unlikely that only an attenuated strain of PRRSV would be identified by RFLP **testing** of samples obtained from pigs concurrently infected with a virulent strain of PRRSV. Nevertheless, the ability of a cell-culture-adapted attenuated strain of PRRSV to predominate during cell culture passage (the first step in the current RFLP **testing** procedure) indicated that, if possible, samples should be obtained from pigs that do not have a history of direct or

indirect exposure to attenuated-virus vaccine.

L75 ANSWER 54 OF 78 MEDLINE on STN
AN 1999122596 MEDLINE
DN 99122596 PubMed ID: 9925208
TI **Detection** of porcine reproductive and respiratory syndrome virus by reverse transcription-polymerase chain reaction using different regions of the viral genome.
AU Guarino H; Goyal S M; Murtaugh M P; Morrison R B; Kapur V
CS Department of Veterinary Diagnostic Medicine, College of Veterinary Medicine, University of Minnesota, St. Paul 55108, USA.
SO JOURNAL OF VETERINARY DIAGNOSTIC INVESTIGATION, (1999 Jan) 11 (1) 27-33. Journal code: 9011490. ISSN: 1040-6387.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; AIDS
EM 199904
ED Entered STN: 19990426
Last Updated on STN: 19990426
Entered Medline: 19990415
AB Serologic studies have revealed strain variability between American and European isolates and among American isolates of porcine reproductive and respiratory syndrome virus (PRRSV). The objective of this study was to develop an **assay** for the routine diagnosis of PRRSV in field specimens using reverse transcription-polymerase chain reaction (RT-PCR) amplification of conserved genomic regions. Twenty-four field isolates of PRRSV from different regions of the USA were analyzed in the study. Six primer pairs from open reading frames (ORFs) 4, 6, and 7 of the American strain (ATCC VR-2332) and from ORF 1b of the Lelystad strain were used for the amplification of the viral genome by PCR. Amplification products of the expected sizes were obtained from all isolates by PCR amplification of ORF 7, the gene encoding the nucleocapsid protein. Oligonucleotide primers designed to amplify ORFs 4 and 6 **detected** 92% and 96% of the isolates, respectively, whereas primers for the amplification of ORF 1b **detected** 88% of all isolates. The specificity of the amplified products of ORF 7 from 7 field isolates and 2 reference strains was confirmed by chemiluminescent hybridization using an internal digoxigenin-labeled DNA probe. Sequence analysis of this region indicated variation in the nucleotide sequence of 2 isolates that did not hybridize with the internal probe. These results indicate that ORF 7 may serve as a potential target for the **detection** of PRRSV strains by RT-PCR and that genomic variability should be considered when nucleic acid hybridization is used to confirm the specificity of PCR amplification for diagnostic purposes.

L75 ANSWER 55 OF 78 MEDLINE on STN
AN 1999008080 MEDLINE
DN 99008080 PubMed ID: 9791868
TI The reverse transcription polymerase chain reaction for the diagnosis of porcine reproductive and respiratory syndrome: comparison with virus isolation and serology.
AU Spagnuolo-Weaver M; Walker I W; McNeilly F; Calvert V; Graham D; Burns K; Adair B M; Allan G Mm.spagnuolo@alphal.qub.ac.uk
SO VETERINARY MICROBIOLOGY, (1998 Jul) 62 (3) 207-15. Journal code: 7705469. ISSN: 0378-1135.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)

LA English
FS Priority Journals
EM 199812
ED Entered STN: 19990115
Last Updated on STN: 19990115
Entered Medline: 19981203
AB A single-tube reverse transcription polymerase chain reaction (RT-PCR) **assay** for the **detection** of porcine reproductive and respiratory syndrome (PRRS) virus in blood samples from infected pigs was developed. This **test** was assessed for sensitivity and application as a rapid diagnostic tool by comparison with virus isolation and **detection** of PRRS virus antibody in blood. The RT-PCR **test** was slightly more sensitive than virus isolation for **detection** of virus in serum and markedly more sensitive than virus isolation from plasma from experimentally infected pigs. The RT-PCR **test** was also applicable when using whole blood-impregnated filter paper discs, with 94% of the specimens taken by this procedure being positive when compared to RT-PCR performed on serum. PRRS viral nucleic acid was **detected** in blood samples as early as 24 h after infection and persisted for some time, whereas circulating antibody to PRRS virus was not **detected** in the same animals until 9 days after infection. These results indicate that the RT-PCR may be an useful technique for the early identification of PRRS viral nucleic acid in blood samples of infected pigs.

L75 ANSWER 56 OF 78 MEDLINE on STN
AN 1998310416 MEDLINE
DN 98310416 PubMed ID: 9646448
TI Blocking ELISA's for the distinction between antibodies against European and American strains of porcine reproductive and respiratory syndrome virus.
AU Sorensen K J; Strandbygaard B; Botner A; Madsen E S; Nielsen J; Have P
CS Danish Veterinary Institute for Virus Research, Kalvehave, Denmark.. kjs@vetvirus.dk
SO VETERINARY MICROBIOLOGY, (1998 Feb 28) 60 (2-4) 169-77.
Journal code: 7705469. ISSN: 0378-1135.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199807
ED Entered STN: 19980811
Last Updated on STN: 19980811
Entered Medline: 19980724
AB A double blocking ELISA was developed in order to satisfy the need for large scale serological **screening** for PRRS and simultaneous distinction between infection with European and American strains of PRRSV in pig herds. The Immunoperoxidase monolayer **assay** (IPMA) and the double blocking ELISA enabled distinction on serological basis between infection with European and American strains of PRRSV. The distinction was possible from about day 7 after infection of pigs with PRRSV. The double blocking ELISA enabled the distinction at later stages of infection compared to the IPMA, irrespective of the strain involved.

L75 ANSWER 57 OF 78 MEDLINE on STN
AN 1998001782 MEDLINE
DN 98001782 PubMed ID: 9342455
TI Performance of ELISA antigens prepared from 8 isolates of porcine

reproductive and respiratory syndrome virus with homologous and heterologous antisera.
AU Cho H J; Entz S C; Magar R; Joo H S
CS Animal Diseases Research Institute, Canadian Food Inspection Agency, Alberta.
SO CANADIAN JOURNAL OF VETERINARY RESEARCH, (1997 Oct) 61 (4) 299-304. Journal code: 8607793. ISSN: 0830-9000.
CY Canada
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199801
ED Entered STN: 19980122
Last Updated on STN: 19980122
Entered Medline: 19980108
AB Porcine reproductive and respiratory syndrome virus (PRRSV) ELISA antigens of high quality were produced using 8 different isolates of PRRSV: the European Lelystad virus (LV), the U.S. MN-1b, 89-46448, 93-44927, and 93-24025B, and the Canadian LHVA-93-3, PA-8 and GH-6 virus isolates. The performance of each of these 8 antigens and a commercial PRRSV antibody **test** kit (Idexx's HerdChek) were measured against antisera raised in 5 groups of 6 piglets inoculated with either LV, MN-1b, 89-46448, 93-44927, or 93-24025B. Among the 8 isolates, the 89-46448 isolate produced the broadest spectrum of antigen and resulted in earlier **detection** of antibodies to various North American PRRSV isolates, followed by MN-1b as the 2nd best ELISA antigen for the **detection** of North American PRRSV antibodies. The GH-6 and PA-8 viral antigens exhibited restricted **detection** of PRRSV antibodies. The LV and 89-46448 combined antigens produced the best performance for the **detection** of antibodies against both European and North American antigenic types of PRRSV. Using 173 panel samples collected at 11 to 60 d after intranasal inoculation with 1 of the 5 PRRSV isolates, the sensitivities of the indirect ELISA used were 73.4%, 98.3%, 90.8%, 98.3%, 83.2%, 93.1%, 77.1%, 64.2%, 98.8% and 95.9% for LV, MN-1b, LHVA-93-3, 89-46448, 93-44927, 93-24025B, PA-8, GH-6 antigens, 89-46448-LV combined antigens and Idexx's PRRSV antibody **test** kit, respectively. All 8 antigens gave negative results with preinfection porcine sera (n = 30); high background or nonspecific reactions were not observed with the antigens.

L75 ANSWER 58 OF 78 MEDLINE on STN
AN 97364347 MEDLINE
DN 97364347 PubMed ID: 9220625
TI Diagnosis of PRRS.
AU Botner A
CS Danish Veterinary Institute for Virus Research, Kalvehave, Denmark.
SO VETERINARY MICROBIOLOGY, (1997 Apr) 55 (1-4) 295-301. Ref: 25
Journal code: 7705469. ISSN: 0378-1135.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199709
ED Entered STN: 19970926
Last Updated on STN: 19970926
Entered Medline: 19970912

AB This paper reviews various diagnostic methods for the **detection** of porcine reproductive and respiratory syndrome (PRRS) virus or antibodies to PRRS virus reported during the period from 1991 to 1995. In addition, experience from a European Community Concerted Action and especially Danish experiences concerning serological **tests** are presented. It is concluded that, in general, serological diagnosis with a high specificity and sensitivity is easy to perform on a herd level. However, no serological **test** has proven to be suitable for individual animal certification.

L75 ANSWER 59 OF 78 MEDLINE on STN
AN 97386931 MEDLINE
DN 97386931 PubMed ID: 9242994
TI Comparative study of serological methods for the **detection** of antibodies to porcine reproductive and respiratory syndrome virus.
AU Cho H J; McNab B; Dubuc C; Jordan L; Afshar A; Magar R; Prins S; Eernisse K
CS Lethbridge, Alberta.
SO CANADIAN JOURNAL OF VETERINARY RESEARCH, (1997 Jul) 61 (3) 161-6.
Journal code: 8607793. ISSN: 0830-9000.
CY Canada
DT (CLINICAL TRIAL)
(CLINICAL TRIAL, PHASE I)
(CLINICAL TRIAL, PHASE II)
Journal; Article; (JOURNAL ARTICLE)
(MULTICENTER STUDY)
(RANDOMIZED CONTROLLED TRIAL)
LA English
FS Priority Journals
EM 199710
ED Entered STN: 19971105
Last Updated on STN: 19971105
Entered Medline: 19971023
AB A comparison was made of serological diagnostic methods used for the **detection** of antibodies against porcine reproductive and respiratory syndrome (PRRS) virus. In the "phase I" PRRS **test** panel comparison, a panel of sera collected from 135 pigs of various ages, from North American herds with and without PRRS histories, were sent to 4 different laboratories and **tested** by an indirect immunofluorescent **assay** (IFA), an immunoperoxidase monolayer **assay** (IPMA) and an indirect enzyme-linked immunosorbent **assay** (iELISA). In the "phase II" PRRS **test** panel comparison, a panel of 382 sera collected from pigs of various ages, PRRS histories, and from various locations in North America and France, were divided into 2 panels (A & B) and sent to 3 Canadian laboratories and **tested** by the IFA and iELISA. In the phase I comparison, agreement between the IFA of laboratory 4 and the iELISA and IPMA of laboratory 3 was excellent (kappa values of 95% and 98%, respectively). This contrasted with the poor agreement between these laboratories and the IFA results of laboratories 1 and 2 in the phase I trial. In the phase II comparison, the results demonstrated good agreement between various **tests** both within and between laboratories. The overall performance of the iELISA was superior in the combination of sensitivity (96.1%) and specificity (100%) relative to the reference classification of the serum samples and repeatability (kappa value 98%). The iELISA is technically superior to IFA and IPMA, time efficient, cost effective and suitable for **testing** of a large number of samples over a short period of time. Thus, the iELISA may be a better alternative to IFA or

IPMA for routine **detection** of PRRS viral antibodies in swine sera.

L75 ANSWER 60 OF 78 MEDLINE on STN
AN 97296045 MEDLINE
DN 97296045 PubMed ID: 9151534
TI Study on the suitability of sow colostrum for the serological diagnosis of porcine reproductive and respiratory syndrome (PRRS).
AU Eichhorn G; Frost J W
CS Staatliches Medizinal-, Lebensmittel- und Veterinaruntersuchungsamt Sudhessen, Aussenstelle, Frankfurt/Main, Germany.
SO ZENTRALBLATT FUR VETERINARMEDIZIN. REIHE B, (1997 Apr) 44 (2) 65-72. Journal code: 0331325. ISSN: 0514-7166.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199706
ED Entered STN: 19970630
Last Updated on STN: 20030218
Entered Medline: 19970619
AB Serum and colostrum from 73 sows were collected. The serum samples were **tested** by Immuno. Peroxidase Monolayer **Assay** (IPMA) and the corresponding colostrum samples with the indirect Immuno fluorescent Antibody (IFA) technique. All serum positive sows were colostrum positive and all colostrum negative were serum negative. Eight sows only reacted positively in the colostral **testing**. Compared to the serum standard **test** the specificity was 82.6% and the sensitivity 100%. The observed agreement between both **tests** was 89.2%. In addition all serum samples were also **tested** with the IF **test** (IFT). Of the eight sows which were negative in the IPMA serum **test** and positive in the IFA colostrum **test**, three were found positive when the serum was **tested** with IFA. Consequently, the observed agreement was higher at 93.2%. After the suitability of colostrum for porcine reproductive and respiratory syndrome (PRRS) diagnosis was demonstrated, 1915 colostrum samples collected from 135 different farms were **tested** in a comparative study with the IPMA and IFA techniques. Of the 1915 colostrum samples 139 were positive with both IPMA and IFA. With IPMA only, 43 samples were positive compared with 192 samples found positive with the IFA technique. A total of 1541 samples were negative in both **tests**. The observed agreement between both **tests** was 87.5%. The quotient of the observed agreement minus chance agreement and the maximum possible agreement beyond chance level (Kappa Quotient) was 0.49. In 90% of the farms that **tested** IFA positive there was a seroconversion of more than 50% of all colostrum **tested**. By comparison only 29% of the IPMA positive farms were positive with more than 50%. Based on the epidemiological findings on PRRS it was concluded that the IFA technique indicates a higher sensitivity for the **detection** of PRRS virus antibodies in sow colostrum. Finally the possible advantages and disadvantages of sow colostrum **testing** and serum **testing** are discussed.

L75 ANSWER 61 OF 78 MEDLINE on STN
AN 97187621 MEDLINE
DN 97187621 PubMed ID: 9035074
TI Early serodiagnosis of porcine reproductive and respiratory syndrome virus infection of pigs by **detection** of slow-reacting and

complement-requiring neutralizing antibody.
AU Takikawa N; Kobayashi S; Ide S; Yamane Y; Tanaka Y; Higashihara M; Yamagishi H
CS Research Center for Veterinary Science, Kitasato Institute, Saitama, Japan.
SO JOURNAL OF VETERINARY MEDICAL SCIENCE, (1997 Jan) 59 (1) 31-4. Journal code: 9105360. ISSN: 0916-7250.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199705
ED Entered STN: 19970602
Last Updated on STN: 19970602
Entered Medline: 19970522
AB In order to evaluate and enhance the sensitivity of the neutralization (NT) **test** for **detecting** antibody in pigs infected with porcine reproductive and respiratory syndrome (PRRS) virus, the effect of altered incubation conditions and complement use on neutralizing (NT) antibody titer were investigated. Higher NT antibody titers were consistently obtained by addition of 20% guinea pig fresh serum to virus-serum mixtures in NT **tests**. Furthermore, the complement-requiring NT antibody titer increased in many serum samples when the virus-serum mixtures, rather than being incubated at 37 degrees C for 60 min, were incubated first at 4 degrees C for 48 hr and then with a complement at 37 degrees C for 60 min. The slow-reacting and complement-requiring NT antibody was **detected** as early as 8 days post-inoculation. It was **detected** in sera collected at 8 to 28 days post-inoculation and was sensitive to 2-mercaptoethanol treatment. Sera collected at 35 to 44 days post-inoculation contained 2-mercaptoethanol resistant NT antibodies. These results indicate that the modified NT **test** is useful for early serodiagnosis of PRRS virus infection through **detection** of higher NT antibody titers, and in **detecting** them earlier.

L75 ANSWER 62 OF 78 MEDLINE on STN
AN 97372450 MEDLINE
DN 97372450 PubMed ID: 9228677
TI Evaluation of a blocking Elisa for **screening** of antibodies against porcine reproductive and respiratory syndrome (PRRS) virus.
AU Sorensen K J; Botner A; Madsen E S; Strandbygaard B; Nielsen J
CS Danish Veterinary Institute for Virus Research, Lindholm, Kalvehave, Denmark.. kjs@sviv.lfm.dk
SO VETERINARY MICROBIOLOGY, (1997 May) 56 (1-2) 1-8. Journal code: 7705469. ISSN: 0378-1135.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199708
ED Entered STN: 19970902
Last Updated on STN: 19970902
Entered Medline: 19970815
AB A blocking Elisa was developed for the **detection** of antibodies against PRRS virus with a view to satisfying the need for examination of blood samples on a large scale. The **test** was evaluated in comparison with an indirect Elisa and the immunoperoxidase monolayer **assay**. The blocking Elisa was sensitive and specific. It had a

higher capacity and was cheaper to perform than the immunoperoxidase monolayer **assay** and the indirect Elisa. It was comparable to the immunoperoxidase monolayer **assay** and better than the indirect Elisa in **detecting** antibodies formed early after infection, and it was superior to both the immunoperoxidase monolayer **assay** and the indirect Elisa in **detecting** antibodies at a late stage of infection.

L75 ANSWER 63 OF 78 MEDLINE on STN
AN 97073244 MEDLINE
DN 97073244 PubMed ID: 8915992
TI Nested PCR for **detection** and typing of porcine reproductive and respiratory syndrome (PRRS) virus in pigs.
AU Kono Y; Kanno T; Shimizu M; Yamada S; Ohashi S; Nakamine M; Shirai J
CS Exotic Diseases Research Division, National Institute of Animal Health, Tokyo, Japan.
SO JOURNAL OF VETERINARY MEDICAL SCIENCE, (1996 Oct) 58 (10) 941-6.
Journal code: 9105360. ISSN: 0916-7250.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199707
ED Entered STN: 19970721
Last Updated on STN: 19970721
Entered Medline: 19970708
AB A nested polymerase chain reaction (PCR) was developed to **detect** porcine reproductive and respiratory syndrome (PRRS) virus. A common primer set for European and North American type isolates of PRRS virus was designed for reverse transcription PCR, and a specific primer set for each of the 2 type isolates was designed for nested PCR. The PCR that used a specific primer set **detected** the corresponding type of the virus at a level equivalent to 1 TCID50/100 microliters, but not the other type of isolates. Therefore, the method clearly differentiated the 2 types of virus from each other. The **detection** of PRRS virus by the nested PCR was as sensitive as virus isolation in cultures of porcine alveolar macrophages from infected pigs at the acute stages, and was more sensitive from pigs at the convalescent stages. The infecting virus type was determined by use of 2 specific primer sets even when virus isolation was negative in naturally infected pigs. It was concluded that the nested PCR is useful for diagnosis and typing of PRRS virus and studies of persistent infection by the virus.

L75 ANSWER 64 OF 78 MEDLINE on STN
AN 96363992 MEDLINE
DN 96363992 PubMed ID: 8744747
TI Alveolar macrophages as a diagnostic sample for **detecting** natural infection of pigs with porcine reproductive and respiratory syndrome virus.
AU Mengeling W L; Lager K M; Vorwald A C
CS Virology Swine Research Unit, National Animal Disease Center, USDA, Ames IA 50010, USA.
SO JOURNAL OF VETERINARY DIAGNOSTIC INVESTIGATION, (1996 Apr) 8 (2) 238-40.
Journal code: 9011490. ISSN: 1040-6387.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals

EM 199703
ED Entered STN: 19970407
Last Updated on STN: 19970407
Entered Medline: 19970325

L75 ANSWER 65 OF 78 MEDLINE on STN
AN 97014814 MEDLINE
DN 97014814 PubMed ID: 8861647
TI Diagnosis of porcine reproductive and respiratory syndrome using infected alveolar macrophages collected from live pigs.
CM Erratum in: Vet Microbiol 1996 Oct;52(3-4):317
AU Mengeling W L; Vorwald A C; Lager K M; Brockmeier S L
CS Virology Swine Research Unit, National Animal Disease Center, USDA, Agricultural Research Service, Iowa 50010, USA.
SO VETERINARY MICROBIOLOGY, (1996 Mar) 49 (1-2) 105-15.
Journal code: 7705469. ISSN: 0378-1135.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199705
ED Entered STN: 19970507
Last Updated on STN: 19980206
Entered Medline: 19970501
AB A highly sensitive method of **detecting** infection of live pigs with porcine reproductive and respiratory syndrome virus (PRRSV) was developed by **testing** alveolar macrophages collected by pulmonary lavage. Five pigs were exposed by oronasal inoculation or by contact to PRRSV when they were 10 (1 pig) or 14 weeks (4 pigs) of age. Diagnostic samples (alveolar macrophages and sera) were collected from each pig just before exposure to PRRSV. During the next 9 weeks sera were collected at weekly intervals and alveolar macrophages were collected at weeks 2 and 4-9. Both sera and alveolar macrophages were suitable for **detecting** early infection, but alveolar macrophages were clearly the better sample after longer intervals. Virus was last isolated from serum at week 4 (from 1 of 5 pigs), whereas it was isolated from the alveolar macrophages of 4 of the 5 pigs at week 4 and from at least 2 pigs at each of the weekly intervals thereafter (i.e. weeks 5, 6, 7, 8, and 9 postexposure). The most sensitive method of **testing** alveolar macrophages for PRRSV was cocultivation with MARC-145 cells. None of the pigs had any clinical signs after exposure to PRRSV or as a result of pulmonary lavage and there was no evidence that repeated pulmonary lavage caused anything other than a mild, transient (mild hyperemia) tissue reaction.

L75 ANSWER 66 OF 78 MEDLINE on STN
AN 92193280 MEDLINE
DN 92193280 PubMed ID: 1372317
TI Structural and immunochemical studies of the lipopolysaccharides of Salmonella strains with both antigen O4 and antigen O9.
AU Weintraub A; Johnson B N; Stocker B A; Lindberg A A
CS Department of Clinical Bacteriology, Huddinge Hospital, Karolinska Institute, Sweden.
NC AI10768 (NIAID)
AI18872 (NIAID)
SO JOURNAL OF BACTERIOLOGY, (1992 Mar) 174 (6) 1916-22.
Journal code: 2985120R. ISSN: 0021-9193.
CY United States

DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199204
ED Entered STN: 19920509
Last Updated on STN: 19960129
Entered Medline: 19920423
AB Two Salmonella hybrid strains, SL5313 (Salmonella typhimurium with a D.rfb+ gene cluster) and SL5396 (S. enteritidis with a B.rfb+ gene cluster), each expressing both O-antigen 4 (of serogroup B) and O-antigen 9 (of serogroup D) were studied by immunofluorescence using a mixture of O4-specific mouse monoclonal and O9-specific rabbit polyclonal antibodies. Bound antibodies, **detected** by anti-mouse antibody labelled with fluorescein isothiocyanate and anti-rabbit antibody labelled with tetramethylrhodamine isothiocyanate showed that more than 98% of the bacteria expressed both the O4 and O9 epitopes. Phenol-water-extracted lipopolysaccharide from batch-grown cultures subjected to sugar and methylation analyses by gas-liquid chromatography and mass spectrometry were shown to contain abequose (of the O4 epitope) and tyvelose (of the O9 epitope) in ratios of 1:1.5 and 1:2.5 for SL5313 and SL5396, respectively. Isolated polysaccharide chains, obtained by weak-acid hydrolysis of the lipopolysaccharides, were found to contain both O4 and O9 specificities in the same molecule, since polysaccharide bound to O4 antibody attached to a solid-phase-adsorbed O9-specific antibody and vice versa. This demonstrates that in strains SL5313 and SL5396 O chains containing both O4 repeating units (from S. typhimurium) and O9 units (from S. enteritidis) are present.

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AN 2003445276 EMBASE
TI **Salmonella enteritidis** causing brain abscess and coxitis following intracranial surgery.
AU Schroder J.; Palkovic S.; Kipp F.; Wassmann H.; Mehta V.S.
CS Dr. J. Schroder, Klin. Poliklin. fur Neurochirurg., Universitatsklinikum, D-48129 Munster, Germany. j.schroder@web.de
SO Acta Neurochirurgica, (2003) 145/10 (919-921).
Refs: 15
ISSN: 0001-6268 CODEN: ACNUA5
CY Austria
DT Journal; Article
FS 004 Microbiology
008 Neurology and Neurosurgery
014 Radiology
033 Orthopedic Surgery
037 Drug Literature Index
LA English
SL English
AB We report the case of a 46-year-old woman who underwent surgery for an adamantinous craniopharyngioma (WHO grade I). The postoperative course, during which the patient received 16 mg/day of dexamethasone, was initially uneventful. After a fortnight the patient developed infectious signs and an intracranial abscess at the operation site with simultaneous purulent coxitis. Both the intracranial abscess and the coxitis were evacuated and drained. In tissue samples and pus obtained during re-craniotomy and during surgery on the hip, **Salmonella enteritidis** was **detected** by cultivation. **Salmonella enteritidis** was also isolated from several

stool specimens. There was no known salmonellosis in the patient's medical history. She recovered as a result of antibiotic treatment with ciprofloxacin and chloramphenicol. The intracranial abscess healed without leaving any neurological deficit. Unfortunately the left hip subsequently required further surgery, culminating in removal of the entire femoral head. Prosthetic replacement could not yet be performed due to the recurrent septic course of the hip. Our case illustrates a serious complication with presumed haematogenous spread of the infection from a pre-existing asymptomatic and unknown colon infection. The immunosuppressive effect of corticosteroids in the treatment of the brain neoplasm might have been a contributing factor to the sudden exacerbation of the latent infection.

L75 ANSWER 68 OF 78 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2003258817 EMBASE
TI Antimicrobial diterpenes from the seeds of Cephalotaxus harringtonia var. drupacea.
AU Politi M.; Braca A.; De Tommasi N.; Morelli I.; Manunta A.; Battinelli L.; Mazzanti G.
CS Prof. G. Mazzanti, Dipto. Farmacol. Sostanze N., Univ. di Roma La Sapienza, Piazzale Aldo Moro 5, 00185 Roma, Italy. gabriela.mazzanti@uniroma1.it
SO Planta Medica, (1 May 2003) 69/5 (468-470).
Refs: 13
ISSN: 0032-0943 CODEN: PLMEAA
CY Germany
DT Journal; Article
FS 004 Microbiology
037 Drug Literature Index
LA English
SL English
AB Six diterpenes, including two new natural products, were isolated from the seeds of Cephalotaxus harringtonia. The new metabolites were characterised as 8β-hydroxy-9(11),13-abietadien-12-one and 5,6-didehydroferruginol, while the known compounds were identified as ferruginol, sugiol, 6,12-dihydroxyabieta-5,8,11,13-tetraen-7-one, and abieta-8,11,13-trien-7β-ol. These compounds were studied in vitro for their antimicrobial activity against clinically isolated bacteria and Candida strains. Ferruginol and 6,12-dihydroxyabieta-5,8,11,13-tetraen-7-one showed antimicrobial activity against Gram-positive bacteria. None of the six diterpenes was active against the Gram-negative organisms and yeasts **tested.**

L75 ANSWER 69 OF 78 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2002345510 EMBASE
TI [Sonographic **detection** of a "VIPoma" in a small child with intractable gastroenteritis].
SONOGRAPHISCHE DETEKTION EINES "VIPOMS" BEI EINEM KLEINKIND MIT THERAPIERESISTENTER GASTROENTERITIS.
AU Riebel T.; Luck W.; Scheer I.; Degenhardt P.
CS Dr. T. Riebel, Abteilung Padiatrische Radiologie, Klinik fur Strahlenheilkunde, Campus Virchow Klinikum, Augustenburger Platz 1, 13353 Berlin, Germany. thomas.riebel@charite.de
SO Ultraschall in der Medizin, (2002) 23/4 (264-266).
Refs: 7
ISSN: 0172-4614 CODEN: ULMEDY

CY Germany
DT Journal; Article
FS 014 Radiology
LA German
SL English; German
AB As case report we describe a rare cause of intractable "gastroenteritis" **detected** by ultrasonography. The 14 months-old boy was admitted to hospital because of intensive dehydration due to massive vomiting and diarrhoea. A salmonella enteritis with intractable hyponatraemia and hypokalaemia was thought to be the cause. After a dramatic relapse during oral treatment measures, further extensive laboratory **tests** finally disclosed an elevated serum level of vasoactive intestinal polypeptide ("VIP"). The VIP secreting tumor ("VIPoma") was **detected** ultrasonographically in a retroperitoneal localization mediocaudally of the right kidney. Diffuse distinct calcifications and an increased perfusion could be demonstrated. Intraspinal tumour spread was excluded by magnetic **resonance** imaging. After complete surgical removal of the tumour the clinical symptomatology normalized promptly and permanently. A VIP-excreting ganglioneuroblastoma with low grade growth fraction ("VIPoma") was diagnosed histologically. Common gastroenteritis in childhood represents no indication for ultrasound. In cases of unclear and therapy-resistant symptomatology, however, diagnostic work-up should include ultrasonography to search for retroperitoneal or pancreatic VIP-excreting tumours.

L75 ANSWER 70 OF 78 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2001340335 EMBASE
TI Simple isoquinoline and benzylisoquinoline alkaloids as potential antimicrobial, antimalarial, cytotoxic, and anti-HIV agents.
AU Iwasa K.; Moriyasu M.; Tachibana Y.; Kim H.S.; Wataya Y.; Wiegrebe W.; Bastow K.F.; Cosentino L.M.; Kozuka M.; Lee K.H.
CS K.-H. Lee, Natural Products Laboratory, School of Pharmacy, University of North Carolina, Chapel Hill, NC 27599-7360, United States. khlee@email.unc.edu
SO Bioorganic and Medicinal Chemistry, (2001) 9/11 (2871-2884).
Refs: 32
ISSN: 0968-0896 CODEN: BMECEP
PUI S 0968-0896(01)00154-7
CY United Kingdom
DT Journal; Article
FS 016 Cancer
030 Pharmacology
037 Drug Literature Index
004 Microbiology
LA English
SL English
AB Twenty-six simple isoquinolines and 21 benzylisoquinolines were **tested** for antimicrobial, antimalarial, cytotoxic, and anti-HIV activities. Some simple isoquinoline alkaloids were significantly active in each **assay**, and may be useful as lead compounds for developing potential chemotherapeutic agents. These compounds include 13 (antimicrobial), 25, 26, and 42 (antimalarial), 13 and 25 (cytotoxic), and 28 and 29 (anti-HIV). A quaternary nitrogen atom of isoquinolium or dihydroisoquinolinium type may contribute to enhanced potency in the first three types of activities. In contrast , anti-HIV activity was found with tetrahydroisoquinoline and 6,7-dihydroxyisoquinolium salts. Copyright .COPYRGT. 2001 Elsevier Science Ltd.

L75 ANSWER 71 OF 78 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2001335946 EMBASE
TI A case ascertainment study of septic discitis: Clinical, microbiological and radiological features.
AU Hopkinson N.; Stevenson J.; Benjamin S.
CS Dr. N. Hopkinson, Department of Rheumatology, Royal Bournemouth/Christchurch Hosp., Castle Lane East, Bournemouth BH7 7DW, United Kingdom
SO QJM - Monthly Journal of the Association of Physicians, (2001) 94/9 (465-470).
Refs: 11
ISSN: 1460-2725 CODEN: QMJPFH
CY United Kingdom
DT Journal; Article
FS 004 Microbiology
005 General Pathology and Pathological Anatomy
014 Radiology
033 Orthopedic Surgery
037 Drug Literature Index
LA English
SL English
AB We studied the spectrum of septic discitis presenting to two busy district general hospitals over 2.5 years (November 1996 to April 1999), surveying the case notes of all patients attending Royal Bournemouth and Poole Hospitals with probable septic discitis on magnetic **resonance** imaging (MRI). Twenty-two cases of septic discitis were identified, suggesting an annual incidence of 2/100 000/year. Seventy-three percent of patients were aged ≥ 65 years. In 91% of patients, back pain was the presenting symptom, with neurological signs evident in 45% of patients. Fever > 37.5 °C was present in 68% of patients, and a marked elevation of erythrocyte sedimentation rate (ESR) in 91%. Diagnosis was originally by MRI in 86% of patients, with plain radiographs not diagnostic of discitis in the early stages of the infection. Staphylococcus aureus was the commonest pathogen (41%), but in 18% of patients, no organism was identified. The major predisposing factors to septic discitis were invasive procedures (41%), underlying cancer (25%) and diabetes (18%). Pre-existing degenerative spinal disease was found in 50% of patients. Four patients whose causative organism was not isolated had a poorer outcome: one death and three with increased morbidity. Our estimated incidence rate (2/100 000/year) is higher than that in previous studies and may be due to a higher **detection** rate with MRI and/or a genuine increase in the number of cases. Septic discitis should be considered in any patient who has severe localized pain at any spinal level, especially if accompanied by fever and elevated ESR, or in the immunosuppressed.

L75 ANSWER 72 OF 78 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 1999016613 EMBASE
TI Structure-activity relationships of protoberberines having antimicrobial activity.
AU Iwasa K.; Nanba H.; Lee D.-U.; Kang S.-I.
CS Dr. K. Iwasa, Kobe Pharmaceutical University, 4-19-1 Motoyamakita, Kobe 658-8558, Japan. K-iwasa@kobepharm-u.ac.jp
SO Planta Medica, (1998) 64/8 (748-751).
Refs: 9

ISSN: 0032-0943 CODEN: PLMEAA
CY Germany
DT Journal; Article
FS 030 Pharmacology
037 Drug Literature Index
LA English
SL English
AB 13-Alkyl derivatives (2-6 and 8-12) of berberine (1) and palmatine (7) were subjected to in vitro antibacterial activity **tests** against Bacillus subtilis and **Salmonella enteritidis.** Antibacterial activity increased as the length of the C-13 aliphatic side chain increased. The effects of the oxygen substituents on aromatic rings A, C, and D of protoberberinium salts 13-20 on the antimicrobial activity against Staphylococcus aureus, B. subtilis, S. enteritidis, Escherichia coli, and Candida albicans are also discussed. The change in lipophilicity of the protoberberinium salts caused by modification of the substituents appears to influence the antibacterial activity. 13- Hexylberberine (6) and 13-hexylpalmatine (12) exhibited the **greatest** antibacterial activity.

L75 ANSWER 73 OF 78 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 78068586 EMBASE
DN 1978068586
TI Structure of LL BM408, an aminocyclitol antibiotic.
AU Kirby J.P.; Borders D.B.; Van Lear G.E.
CS Process Anal. Res. Sect., Lederle Lab., Div. Amer. Cyanamid Co., Pearl River, N.Y., United States
SO Journal of Antibiotics, (1977) 30/2 (175-177).
CODEN: JANTAJ
DT Journal
FS 037 Drug Literature Index
030 Pharmacology
004 Microbiology
LA English

L75 ANSWER 74 OF 78 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 75037528 EMBASE
DN 1975037528
TI Synthesis of 3',4' dideoxybutirosin A, active against butirosin resistant bacteria.
AU Saeki H.; Shimada Y.; Ohashi Y.; et al.
CS Cent. Res. Lab., Sankyo Co., Ltd., Tokyo, Japan
SO Chemical and Pharmaceutical Bulletin, (1974) 22/5 (1145-1150).
CODEN: CPBTAL
DT Journal
FS 037 Drug Literature Index
LA English

L75 ANSWER 75 OF 78 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 74114446 EMBASE
DN 1974114446
TI Synthesis and antitumor and antibacterial activity of benzoquinones related to the mitomycins.
AU Witty T.R.; Remers W.A.
CS Dept. Med. Chem. Pharmacogn., Sch. Pharm. Pharm. Sci., Purdue Univ., West

Lafayette, Ind. 47907, United States
SO Journal of Medicinal Chemistry, (1973) 16/11 (1280-1284).
CODEN: JMCMAR
DT Journal
FS 037 Drug Literature Index
030 Pharmacology
016 Cancer
LA English
AB In an attempt to determine the minimum structural requirements for antibacterial and antitumor activity in mitomycin analogs, 5 different hydroxymethylbenzoquinones were synthesized and converted into their methyl carbamates. The hydroxymethylbenzoquinones were somewhat more active than either their carbamates or simple benzoquinone analogs against gram (+) and gram (-) bacteria. In standard NCl **screens** the carbamates possessed ED50 values of 12-26 μg/ml in the KB cell culture and were inactive against L 1210 lymphoid leukemia.

L75 ANSWER 76 OF 78 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:384507 BIOSIS
DN PREV200300384507
TI Interactions of oxovanadium(IV) and the quinolone family member-ciprofloxacin.
AU Turel, Iztok [Reprint Author]; Golobic, Amalija; Klavzar, Ales; Pihlar, Boris; Buglyo, Peter; Tolis, Evangelos; Rehder, Dieter; Sepcic, Kristina
CS Faculty of Chemistry and Chemical Technology, University of Ljubljana, Askerceva 5, 1000, Ljubljana, Slovenia
iztok.turel@uni-lj.si
SO Journal of Inorganic Biochemistry, (1 June, 2003) Vol. 95, No. 2-3, pp. 199-207. print.
ISSN: 0162-0134 (ISSN print).
DT Article
LA English
ED Entered STN: 20 Aug 2003
Last Updated on STN: 20 Aug 2003
AB The interactions of quinolone ciprofloxacin (cfH) and oxovanadium(IV) were studied by various methods. Green **crystals** of a complex (VIVO(cf)2(H2O)) were isolated and the molecular connectivities established, although the **crystal** structure was not perfectly refined due to the instability of the **crystals**. Based on a plausible interpretation of the data sets, two of anions bidentately coordinate to a vanadyl cation through carboxylate and carbonyl oxygen atoms; in addition, there is a water molecule in the coordination sphere. Solution techniques (cyclic voltammetry, electronic and electron paramagnetic **resonance** spectroscopy, potentiometric measurements) confirmed the presence of various species in the solution, the composition of which strongly depends on the conditions in the system. The antibacterial activity of the complex against various microorganisms was **tested** and it was established that its activity is similar to that of free ciprofloxacin.

L75 ANSWER 77 OF 78 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1998:213536 BIOSIS
DN PREV199800213536
TI A Salmonella monitoring programme in egg production farms in Germany.
AU Geue, L. [Reprint author]; Schlueter, H.
CS Fed. Res. Cent. Virus Dis. Anim., Inst. Epidemiol. Diagnostics, Seestrasse 55, D-16868 Wusterhausen, Germany
SO Journal of Veterinary Medicine Series B, (March, 1998) Vol. 45, No. 2, pp.

95-103. print.
CODEN: JVMBE9. ISSN: 0931-1793.
DT Article
LA English
ED Entered STN: 11 May 1998
Last Updated on STN: 11 May 1998
AB A programme monitoring the prevalence of Salmonella infections in egg production farms with different types of flock management was conducted over a period of 18 months. Three laying hen farms with floor pens and five farms with batteries were examined from September 1992 to March 1994. A total of 569 samples (293 feed and 276 faeces) were processed in parallel by fivefold fractional enrichment in Rappaport/Vasiliadis medium and in potassium tetrathionate **crystal** violet broth. By using such elaborate methods, high **detection** rates of Salmonella were obtained. Two thirds of all isolates were found in the third to fifth selective enrichment procedure. Salmonella (S.) Tennessee was the most common serovar isolated (from 24.5% of the samples) where-as S. Enteritidis was the second most common isolate (23.7%). Salmonella were isolated from 33.1% of the feed samples (97/293), a result which may stimulate further discussion on the prevention of potential contamination of feed stuff with Salmonella and other pathogens. The number of Salmonella isolations from floor pens was significantly higher than from batteries. As time progressed an increase in the number of Salmonella isolations occurred in samples taken from the floor pens. The development of a less costly routine monitoring programme to **detect** Salmonella in samples taken from barns with layer flocks is recommended.

L75 ANSWER 78 OF 78 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1989:95152 BIOSIS
DN PREV198987049288; BA87:49288
TI CARDIAC FUNCTION AND CORONARY FLOW IN CHRONIC ENDOTOXEMIC PIGS.
AU LEE K J [Reprint author]; DZIUBAN S W JR; VAN DER ZEE H; GOLDFARB R D
CS DEP PHYSIOL, NEIL HELLMAN MED RES BUILD, ALBANY MED COLL, ALBANY, NY 11208, USA
SO Proceedings of the Society for Experimental Biology and Medicine, (1988) Vol. 189, No. 2, pp. 245-252.
CODEN: PSEBAA. ISSN: 0037-9727.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 6 Feb 1989
Last Updated on STN: 6 Feb 1989
AB We have reported that myocardial inotropism was depressed in acute and chronic endotoxemia. One possible mechanism for this observation is that endotoxemia reduces myocardial perfusion and indeed, we observed reduced myocardial perfusion in acute endotoxemia. This study **tested** the hypothesis that reduced inotropism of chronic endotoxemia was accompanied by reduced coronary artery blood flow. Fifteen pigs were equipped with left atrial and ventricular catheters, circumflex coronary and pulmonary artery flow meters, left ventricular pressure transducer, and ultrasonic **crystals** in the anterior-posterior axis to measure internal short axis diameter by sonomicrometry. The pigs recuperated for 3 days before basal data were collected ove the next 3-5 days. After at least 7 postoperative days, an osmotic pump containing Salmonella enteriditis endotoxin was implanted in 12 pigs. Endotoxin was delivered at 10 μg/hr/kg for 2 days, at which time the animals were sacrificed. Osmotic pumps containing sterile saline were implanted in 3 pigs. Eight of the 12 endotoxemic pigs survived; 4 died before the

morning of the second day. The survivors exhibited elevated heart rate, peak left ventricular systolic pressure, and cardiac output. Inotropism was evaluated by calculating the slope of the end-systolic pressure-diameter relationship (ESPDR) and % diameter-shortening. ESPDR was significantly depressed on the second endtoxemic day, while % diameter-shortening was depressed on both endotoxemic days. Coronary artery blood flow was significantly elevated on both endotoxemic days, while cross-sectional stroke was unchanged. Therefore, the ratio of coronary blood flow to stroke work increased on both endotoxemic days. Nonsurvivors exhibited reduced heart rate, cardiac output, peak left ventricular systolic pressure, ESPDR, and % diameter-shortening. Neither coronary artery blood flow nor flow-to-work ratios increased in this group. Sham endotoxemic pigs demonstrated no cardiac or hemodynamic changes over 3 days. These results indicate that depressed inotropism during chronic endotoxemia was not caused by reduced coronary blood flow; rather, the myocardium was relatively overperfused.

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